THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

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Rotation and Good Management.

IT is surprising how much more some men will accomplish by dint of good management and shrewd thinking, than others will by hard and laborious toil. A good story is told of a "back woods" farmer, in whose fields the stumps and his crops held each a sort of doubtful jurisdiction, and who was very much annoyed by the difficulties in contending with these stubborn representatives of the original forest-oaks. His boys complained much of the annoyances they met with in plowing and harrowing—the old-fashioned "drag" especially gave them great trouble, by its constant overturning while plunging among the stumps; once in each ten yards of traveling, on an average, they were obliged to stop and place it "right side up." "Boys!" said the father one day, when his patience had become exhausted, "take that harrow over to Hammerwell, the blackswith, and tell him to make the teeth all twice their present length and shape at both ends, and we shall see what we can do!" It was accordingly done, and the harrow came back with its teeth as surely pointing both directions as those of a revolving horse-rake. "Now, boys, we will try the new harrow," and it was accordingly set in motion. "Why, father," soon exclaimed one of the sons, "it has upset again, just as bad as before!" "Never mind, go right on without stopping, it will work either side up." The difficulty was conquered; and the harrowing was speedily accomplished, and without the innumerable delays of "righting the ship."

We have seen some very industrious and worthy farmers whose labors we could not help comparing with this continued toil with the harrow; and others again, whose skilful management was fully equal to the double-acting, double-toothed pulverizer. And in nothing was this difference more visibly exemplified than in the arrangement and ROTATION OF CROPS.

There are other very important requisites in good farming, but they are all accomplished with an increase of expenditure and labor. Manuring, for example, is a most powerful means for improvement; but both manures and their application are expensive in proportion to the amount applied. Underdraining has wrought wonderful results, but the cost is always a large item, and the same may be said in some degree of deep plowing and subsoiling. But in the arrangement of a rotation, no additional expenditure or labor is necessary; it costs no more to cultivate crops which are made to succeed each other judiciously, than to cultivate those arranged in the worst manner possible. The former may bring triple the successful results of the latter—not by the expenditure of five hundred extra days in drawing manure, or five hundred dollars worth of ditching; but simply by making a proper use of one's brains.

It most fortunately happens that no extraordinary originality, shrwedness, or profound wisdom, is needed to render available all the advantages of a well devised rotation. The full experience of others is furnished directly to our hands, in the excellent practical publications which have appeared on this subject; and all we have to do is to make use of the materials right before us. It seems surprising, under these circumstances, that so small a number seize the golden prize thus completely placed within their reach—that there are so few, even of those reckoned good farmers, who pursue anything like a systematic succession, to say nothing of such a rotation that shall accomits peculiarly beneficial results, namely, preservation of the riches of the soil, destruction of weeds, destruction of insects, and the most advantageous consumption by each successive crop of all the means for its growth within reach. As a consequence of this neglect, we see land overcropped with wheat, the soil worn out for this particular grain, and those troublesome weeds, chess and red-root, taking its place. We see pastures, left unplowed for a long series of years, become filled with "buttercups" and oxeye daisy. A dispro-

portion of spring crops facilitates the spread of wild mustard, and among insscts, grubs and wire worms increase according to the cultivation that favors their labors. It appears to be but little understood how great is the assistance, to clean cultivation afforded by a good rotation. The best example of this sort we ever witnessed, where every field of the symmetrically laid-out farm except a wet meadow, was brought under a regular, unvarying system, scarcely a weed was ever to be seen; and we ascertained that not one-third of the labor usually expended, was required for the hand-dressing of hoed crops. The alternation was such that the whole operated like the two-faced harrow—the culture of each successive crop constantly tended to the destruction of some weed injurious to another, and thus all were destroyed in their respective turns; while at the same time the fertility of the land was increased, and each crop fed with its own proper nutriment as its turn came round.

Grain Crops in New-Hampshire.

The Report of the Committee of the New-Hampshire State Agricultural Society, as published in the *Granite Farmer*, shows very conclusively that large crops may be raised in that State, provided the great essential requisite, good cultivation, is given. Among the statements, we observe that of JAMES WILSON, of Francestown, who raised thirty-nine bushels and twenty-seven quarts of spring wheat on an acre and thirty-two rods, or thirty-three bushels and seven quarts per acre. The land was plowed in 1850, ten inches deep—the next year 25 loads of fresh manure were plowed in, and corn planted, using 15 loads yard compost in the hills. In the spring of 1852, the ground was plowed twice thoroughly, and two bushels of Black Sea wheat sown. The following is the estimate of the cost *per acre*:—

Plowing twice,	$3 00
Three harrowings,	75
One-fourth of 40 loads of manure, $1 per load,	10 00
Two bushels of seed,	2 50
Interest on land,	3 00
	$19 25
Credit by 33 bush. 7 qts. wheat at $1,25,	41 50
Nett profit,	$22 25

It will be perceived that this success must be in a great degree owing to the 40 loads of manure, well mixed with the soil by the plowings and harrowings.

Several other crops of spring wheat varied from 20 to 27 bushels per acre.

Indian Corn.—Six experiments were reported, the product varying from 54 to 101 bushels per acre. We observe a leading feature in nearly all these experiments, the large quantity of manure used. The crop of JAMES A. COOK, or Cornish, yielded 96 bushels per acre; it was manured first with 50 cart loads (size of cart not stated) per acre, plowed six inches deep; then with 50 loads of compost, plowed under three inches deep; the corn planted in drills three and a half feet apart, and six inches in the drill, and with 20 "loads" of "hog-manure and compost" in the drill. Soil sandy loam—suffered by drouth and worms—harrowing "equal to twenty times over." Experience has taught us that from one-fourth to one-third more may be raised by planting in this manner in drills, over planting in hills; but we very much question the economy of so copious an application of manure *at one time*, under ordinary management and at ordinary depth of culture. If thoroughly intermixed and covered with the soil, the whole would doubtless be absorbed and retained; but the difficulty of thorough admixture increases with the quantity applied at one time, and although the crop may be very large, there may be more waste by evaporation of volatile parts than with a more moderate quantity. Recent experiments indicate that the loss of manure from imperfect pulverization and mixture, is much greater than is generally supposed, often amounting to one-half or two thirds of the whole quantity applied.

EMERSON FURBER'S crop of corn—41 bushels on 65 rods, or 101 per acre—was raised on a piece of ground, enriched by occupation as a cow-yard, and afterwards by four cords of manure plowed ten inches deep, and well mixed with a cultivator. The corn was planted in hills, and the ground stirred "often." No complaint of drouth and worms is made, as in the previous experiment; and the crop would doubtless have been larger had it been planted in drills. Ths experiment is certified by witnesses.

JOHN BROWN raised 31 bushels on half an acre, or 62 per acre, in a district of country where the weather proved very unfavorable. His rule is to plant potatoes on sod, plow under 15 cartloads of manure in autumn, (50 bushels per load,) and twenty-five the next spring, and then plant the corn in rows 3 ft. by 2, thinning to 4 stalks in a hill, and avoiding hilling. He states that for fifteen years, his crop has been from 75 to 136 bushels shelled corn per acre, the average over 85. He thinks 40 loads of manure more economical than 20, the latter usually producing about 40 bushels per acre, the former about 80, the cost of cultivating being in both cases the same. It is an interesting subject of inquiry, what quantity best promotes that degree of growth which shall afford the best remuneration for the outlay—varying of course with the previous fertility of the land. J. Brown thinks he has greatly improved the productiveness of his crops of corn, and kept up its early ripening, by selecting the seed in the field.

Salting Hay.

Judging from what I have seen within my own sphere of observation, I should say that the business of salting hay, where it is done at all, is done in a rather slovenly and injudicious method. The common practice seems to be, to unload a whole wagon full of hay at once, without the sprinkling on of any salt, and then to throw on in handfulls, a peck or so, when the unloading is completed. This will necessarily make some of the hay excessively salt, while a part will receive no benefit from it all. Some assert, in defence of this slovenly and wholesale mode of salting hay, that the salt will rise through the whole load, from what was put on before each load; and some again speak of the salt being sure to soak down from above. Neither supposition has any plausibility to support it. I am satisfied, both from experience and the nature of things, that the better way of applying salt is to sprinkle a little, say from a teaspoonful to a table-spoonful, upon each forkful as it is unloaded. Any boy could attend to this. Even little girls have sometimes turned out and done this, in the midst of the hurry of hay harvest. But where neither little boys nor girls can be had to attend to the regular sprinkling of salt upon every forkful of hay, I think it a matter of so much importance, that I take a man from his work in the field to attend to it.

When salt is thus evenly sprinkled over your hay as it is mowed away in the barn, you need give yourself no concern about salting those creatures that partake of it during the winter. They will get a little every day, every meal, with their hay. This certainly seems more natural and healthy than getting a whole lot at once, at intervals of a week or so. The quantity which I aim to have used, is as near as may be to a peck to each ton of hay. OBSERVER.

USEFUL EMBROIDERY.—The New-Hampshire State Ag. Society has offered $22 in six premiums for the best specimens of Patching and Darning, to be exhibited at the State Fair next autumn. We should look upon these specimens with far more interest than all the worsted dogs, and flowers, and trees, and "parrots with twin cherries in their beaks," containing all the essential elements of stiffness, and seen for the thousandth time. A part of the premiums are for girls under 14.

Fancy Lop-eared Rabbits, imported and bred by George P. Burnham, Boston, Mass.

Fancy Rabbits.

MESSRS. EDITORS—In a late number of the Country Gentleman, I noticed an article from the pen of one of your correspondents on the subject of "*Lop-eared Rabbits.*" As I have a few fine samples of this much admired stock. I send you a drawing (taken from life) of one of my favorite does, now with her young beside her.

My fancy rabbits I imported from Dublin, from London, and from Liverpool. I have had five different lots from England and Ireland, and they prove very fine specimens. My rabbitry is constructed so as to accommodate forty breeders, each in separate hutches, which are arranged in tiers, or ranges of boxes, one above another, five in number from floor to ceiling. The hutches are each about 3 feet long, 15 inches high, and 28 inches deep. At one end is an apartment, divided off for sleeping, and for the doe's convenience. The front is wired, the floors slant to the rear for drainage, and there is a flap-door behind each hutch or cage, which is raised for the purpose of cleaning out the boxes daily.

I feed them upon oats, ruta bagas, clover hay, beets, turneps and carrots; and, in the summer, upon other seasonable vegetables, with brewers' grains, corn meal, etc. In one end of my rabbit house, I have a portion of it divided off from the main hutches, (or breeding room,) into two apartments, for the *young* rabbits, after being taken from the does. From these two apartments, there are small doors opening out at the southwesterly side of the rabbitry, upon a clover lawn, where, for an hour or two each pleasant day, the young ones are permitted to sport and enjoy exercise. The old rabbits are kept up, altogether, in the hutches, where they thrive well with judicious feeding and care.

These rabbits are both for the table and as "pets." They reach a great size, and often weighing 12 or 13 lbs. each, and more; while the beauty of their forms, their varied colors, and their long pendant ears, make them a pleasing novelty among those who have a taste for similar favorites on the farm or rural retreat.

The demand for purely bred fancy rabbits has been altogether beyond the supply in this country, for the past year or two. I shall have a few pairs to dispose of by and bye, and shall be happy to furnish any of your readers who may come in season, with such as I may have, at four to six months of age, bred from the imported animals. Yours truly, GEO. P. BURNHAM. *Boston, Mass.*

Practical Farmers—Farming on Long Island.

The first and most important question which arises in taking this subject in view, is, "who is the practical farmer?" This is probably the most disputed question in agriculture. But in my mind it is easily answered. It is he who understands the *art* and *science* of *farming*, and can base his plans on no false theory, but on the scientific baseof husbandry, and then see them carried out in a manner which shall prove his knowledge of the practice, or if you please, "*by the sweat of his brow.*"

But let us notice the practical farmer of the present day, or more properly, he who *calls himself* the practical farmer. He can boast of an ancestry of *practical* farmers, who have impove-

rished his farm so that he can scarcely make a living on it; but how, is a question, which if you put to him, he cannot answer. He lives, or half lives, and so do his family—but how, he cannot tell you. He has no system of accounts, and if he had they would be of no use to him, for at the end of the year he could not reckon them up.

My intention is far from ridiculing *these* farmers; but it is to awaken them to the necessity of improvement, and if this be impossible in themselves, not to deny it to their children.

Last spring, when I first took possession of this farm, one of the first practical jobs which I accomplished, was (with spade in hand) to examine the *subsoil*, which I found to contain no substance poisonous to vegetation, and to my delight, for our soil is a sandy loam, it appeared to contain more clay than was to be found in the surface soil.

I plowed a lot which I designed for oats, from six to eight inches deep. This lot was the poorest piece of land on the farm, and had never before been plowed more than three inches deep. The oats were then sowed, and the only manure applied was 100 lbs. Peruvian guano per acre, sown broadcast.

My neighbors all said I was ruining my land by letting the *goodness out*, and showered upon me many other *interesting* criticisms of the same kind. I tried to reason and explain to them, that I had done nothing but what *common* sense taught; but to convince them was of no use, for—

> "He that's convinced against his will,
> Is of the same opinion still."

I therefore let the matter rest, hoping to show them the benefit of the course I pursued in *harvest* time.

I would add that these oats, at present, look better than those sowed by my neighbors three weeks previous to them, on a much richer soil.

On the Long Island farms, the top of a side hill is usually called a *gravelly knoll*, as the soil, if there ever was any on it, has long since washed off, making it not only useless for cultivation, but decidedly unpleasant to the eye. The knolls are scarcely ever cultivated, and never manured.

I have been thus particular in this description, as I wish to mention the treatment I pursued on one of them previous to planting it with Indian corn. In a lot of five acres, one-tenth of it was taken up by one of these knolls. I first spread it over broadcast with 23 loads of pond mud, which was last winter exposed to the action of the frost. I then spread, in the same way, several loads of pig manure; these having been plowed in, and well harrowed, I planted my corn with dung in the hill, as I did also the remainder of the lot.

The corn, at this date, on the side hill, looks as promising as that in the valley of the lot, which is a rich loam. I will not mention the many discouragements I met with while pursuing this course, supposing, as they were disagreeable to me, they would also be to the reader.

There is no portion of the state where the land is more subject to drouth than on this island, and probably no region where deep plowing is so little attended to. On sandy and friable soils, deep plowing may often be injurious, but this is an exception to the general rule. When the rain runs off the hills without penetrating the soil, and thus causing drouth, the best remedy is to plow deep.

I have already written more than was at first my intention, and will therefore *cut short*, promising after harvest to give the results of the crops I have spoken of, be they *good* or *bad*, and at some future time will relate the course I have pursued with other crops. Your ob't serv't, GEORGE T. HAMMOND. *Hill-side Farm, Huntington, L. I.*

Smokey Chimneys.

We would prefer almost any situation to confinement in a smokey room. Many a family we have known to be reared in kitchens that received smoke enough, every month, to cure a heap of bacon. These same families would seem to be so thoroughly cured by smoke, as to defy the cholera or any contagious disease.

One imagines that his house is located upon the wrong side of the hill or wood lot. Another complains that his dwelling stands in a valley where the winds move in a fixed current down his chimney, and no scientific application can prevent it.

As you pass through many a village or country town, you find the chimney tops adorned with every kind of paraphernalia that human wisdom may invent. The first impression is, that you are passing a sentinel upon the walls. In our cold latitude, where chimneys are indispensible, nothing, at so little cost, sets off the upper story and good appearance of a dwelling like a well-proportion chimney top.

Sometimes, where there are two flues in the same chimney, the smoke will ascend the one and descend the other into another apartment of the house. To remedy this, take out the division wall between the flues, from the top downwards about four or five feet. This will check the cold draught, or descent in the opposite flue.

Smoke is an elastic fluid, and being rarified by heat, becomes lighter than the atmosphere, and rises to its proper elasticity, unless some obstruction or stronger current turns it from its natural course.

All bodies, lighter than the surrounding atmosphere, ascend in a perpendicular line. The same may be applied to those substances that are more weighty than the atmosphere; they fall in a perpendicular line, unless forced out of their natural course. Smoke, near the fire, is the most elastic, and rises faster than when at some distance above it. This is one principal point why the draught to open chimneys, for burning wood or coals, is so slight; the sooner the smoke cools, by coming in contact with a larger quantity of the surrounding atmosphere, the slower it ascends.

The flue, at some distance above the fire, may be too small, and the throat of the chimney, just opposite the mantel, immediately over the fire, may be too large, or the throat may not be directly over the fire to receive the smoke, all of which will prevent the free and upward tendency through the chimney, to the outside atmosphere.

The throat of the chimney, in all cases, should be at a proper distance from the fire, and *perpendicular above it*; where the throat is of immoderate size, however perfect in every other respect the fire-place may be constructed, nothing can prevent the warm air in the room rapidly escaping through it. The same applies to cast-iron fire-places, or open stoves, for burning wood or coal. The draught can be carried backward, but to receive the smoke, the flue must commence perpendicularly above the fire, and the throat not more than one-half, one-third or one-fourth the size of the flue above, because, as before stated, the more

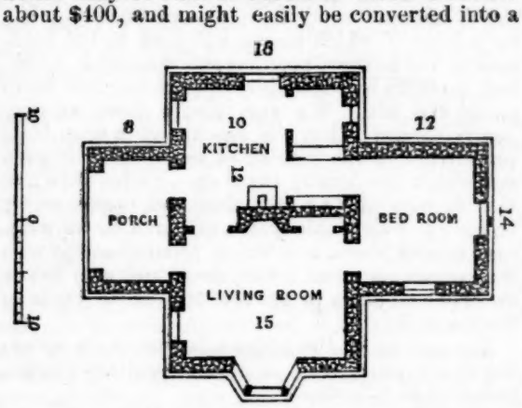
heated the smoke the more rapid it rises, and requires a less aperture to pass off; but as it becomes chilled as it leaves the fire, of course it is less elastic and requires a larger flue, that it may not choke up and set back into the room, as we too frequently see it. Respectfully, S. W. JEWETT. *Middlebury, Vt.*

Toll-House.

No building is placed in a more conspicuous position than a toll-gate house; and as a general remark, none is more destitute of architectural taste; for if there is in the whole country, on our numerous turnpikes and plank roads, a single really handsome erection for this purpose, we have never been so fortunate as to find it. Many of the roads, it is true, pay very scanty dividends, and although the stockholders may be rich, the company is poor; and we must admit the same excuse that is rendered for the erection of the slap-and-turf shanty—no better can be afforded. But this is by no means universally the case; some of these corporations are making money rapidly, and deserve to be represented by a decent looking structure.

(Fig. 1.)

The accompanying figure represents a plain and simple, but architectural cottage for a toll-gate. The open porch is the place for receiving payment from travelers. A few trees planted about this cottage, it is very evident would impart to the whole, a neat and beautiful appearance. This house may be built of cobble or block stone for about $400, and might easily be converted into a



(Fig. 2.)

cottage for ordinary purposes, by closing the opening of the porch, and making a bed-room of the wing. It would then contain a living room 12 by 15 feet; a bed-room 11 by 12 feet; a kitchen 10 by 12, with a small store room partitioned off from it; and another bed-room 8 by 14.

In some instances, where the road is very profitable, a substantial cottage of more cost and pretensions might be erected, a hint for which may be furnished in the accompanying view (fig. 3) representing the entrance lodge of the Derby Arboretun, in England, and which would also be greatly improved by half a dozen good ornamental trees.

High Culture and Heavy Crops.

The following account (copied from the Mark Lane Express,) of the enormous amount which may be obtained from land when under *deep, thorough,* and *constant* cultivation, and very high manuring, exhibits in a striking light the superiority of such management. It must be remembered that all the profits here attained (over $500 per acre for mangel wurtzel, besides two other crops the same year,) are accomplished by spade cultivation and hand labor; let trench-plowing, subsoiling, and horse drilling and horse cultivation, take their place, and the difference between cheap labor and good markets, as in the instance given, and higher labor and lower markets in this country, would certainly be fully made up. We are not at all surprised at the small extent of root culture among our farmers, when we see the great want of economy in their culture and management. Where, for instance, shall we find such an implement in use as Garrett's horse hoe, which will dress out at one passing, ten rows of roots, shaving all the weeds within an inch of the plants, and managed and guided by a single hand?—

For the benefit of the readers of your journal, I beg to inform the "Devonshire Farmer" that Mr. Charles Bagley, of Fulham, a market gardener of the first magnitude, within the last five years has grown, and weighed publicly, when topped, tailed, and well cleaned, upwards of 80 tons of mangel wurtzel per acre, and sold it to the London cow-keepers at 27s. per ton. I understand he grew about seven acres of the said mangel. He lays 100 tons of manure per acre per year; and he plants upon the land that is for mangels, after Michaelmas, cabbages, in rows one foot asunder, being 43,560 cabbages upon an acre Early in the spring, every other row of cabbages, containing 21,780 upon an acre, is taken away, and they are sold in bunches as greens, and a row of mangel wurzel is planted in the place, by the side of 21,780 cabbages upon an acre, being then a row of cabbages and a row of mangel adjoining the cabbages. The cabbages stand until they are fit for market; they are then taken away to make room for the mangel, being one root of mangel in two square feet, alias 24 inches by 12 inches, or 288 square inches for each mangel wurtzel. Of course a market gardener of such great discernment would not let a plant be wanting to make up a full crop; at that rate and management there is not a foot of ground lost, very unlike the crops of many farmers.

This market gardener occupies about 80 acres of land, a great part of it his own property. I have known him in what they call the gathering season, pay £100 a week for labor; and I have seen, not in the busiest time, 50 men laborers leave the gardens to go to dinner, and also with them 25 women, making together 75 people, employed upon 80 acres; and I have seen them return again after dinner. I have known this persevering market gardener have two crops in a year, besides a crop of mangel. The first early row of cabbages being taken away, a row of lettuce is planted

where they stood, and the mangel wurzel is planted after the last row of cabbages is taken away, getting three crops in one year. There being 21,780 plants of mangel in an acre, to produce 80 tons per acre, the plants ought to average 8¼ lbs. each, which amounts to a little over 80 tons per acre.

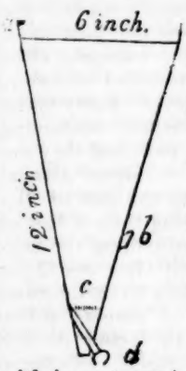
A noble-minded, high-spirited, keen-sighted farmer, a pupil of Mr. Bagley's produced last year, in a midland county, yellow globe mangel, many roots of which weighed 16, 17, 18, 19 and 20 lbs., each plant or root; and I saw the said roots exhibited in London last Christmas. Mr. Charles Bagley's 80 tons per acre were the long red mangel. A great deal of useful information may be gleaned by the farmers from the market gardeners near London, in producing green crops, filling up vacancies, &c., &c.

Roots being the mainstay, of good husbandry, it is by the cultivation of them that the Norfolk farmer has spread his fame throughout the world, and Lincoln Heath and the Wolds in Lincolnshire, the same; all of which has struck thousands with admiration and amazement, to see hundreds of thousands of tons of fine meat produced where only rabbits and vermin existed before; many howling wildernesses brought into cultivation, now producing fine crops of corn, turneps, and clover. Mr. Coke, the late Earl of Leicester, used to say the more meat a plowed farmer sent to Smithfield, the morn corn per acre he would be enabled to sell at Mark Lane.

Box for Sanding Buildings.

I will try to describe an apparatus for sanding buildings, &c., which I made and used myself, with effect.

This is an end view. It is in the form of a wedge, made of one-half inch board, 12 inches long, 8 inches wide, 6 inches across the head, and one-eighth of an inch at the mouth. *a* and *b* are the places for the hands when using. At *b* is a wooden handle—*c* is a light support in the middle to keep the sides from spreading—*d* is a roller, 2 inches in diameter, and 8 inches long, with iron gudgeons, and fastened with iron straps to the machine, in such a manner that the sand falls between the roller and the building on which it rolls, and thus presses the sand into the paint. The machine is held at an angle of 45 or 50 degrees, and runs up on the roller, being pressed hard to the building. It will fill the paint with sand, leave a smooth surface, and give an appearance of grained stone. It may be used with good effect on buildings, that are ceiled or boarded up smooth, and is supposed to be more lasting than common paint. I forgot to say the sand is put in at the upper end, which slides out and in, for that purpose. A. S. Moss. *Fredonia, N. Y.*



Profitable Crop of Hops.

MESSRS. EDITORS—According to your request, I send you the un-published manuscript of my account, of five acres of hops, one acre of which produced 2,886 lbs., the largest amount per acre on record. You will see, by referring to the State Transactions, 1851, Madison county, that I received the 1st premium on my farm—the manner of cultivation—also a statement of my hop crops, &c.

You will perceive that I give items of expense, depreciation of hop-poles and buildings, which, in my opinion, should be taken into account. If the enclosed will be of any service to you and the public, you can publish them.

I would refer you more particularly to the Transactions for my farm operations. The manner of *keeping farm accounts, &c.*, which, in my opinion, is one of the most important matters in arming. H. P. POTTER. *East Hamilton, Madison Co., N. Y.*

LOT. No. 8—HOPS—FIVE ACRES.

		Dr.
To 109 loads manure and drawing, 4s.,		$54 50
134½ days work, to Sept. 1st, 6s,		100 88
42 " tending box, 6s.,		31 50
15 " drying hops, 12s.,		22 50
14 " pressing hops, 6s.,		10 50
270 bush. coal, 7c.,		18 90
Hop sacking and twine,		24 32
Cost of engaging and collecting hop pickers,		13 18
Paid for picking hops,		132 36
Help in house,		9 00
Provisions,		48 65
Interest on land, $65 per acre,		22 75
Depreciation on hop poles, 10 per cent,		30 00
" on hop-house, 10 per cent,		30 00
Insurance,		2 75
Whole expense,		$551 79
Cost per acre, $110 36.		
Profit of five acres,		1,050 41
		$1,002 20

		Cr
1851. Sept. 20. By 7,801 lbs. sold, 20c.,		1,560 20
Hop roots sold in April,		42 00
		$1,602 20

Making the Most of the Soil.

The interesting Address of W. CLIFT, before the Windham County Agricultural Society, (Ct.) for a copy of which we are indebted to the kindness of the author, contains the following excellent remarks on the subject of enriching and deepening the soil. We may lay it down as very nearly correct, that the amount of a crop is in proportion to the number of cubic yards of good soil which the farmer turns up with his plow; so that he who plows a foot deep and consequently turns up 1600 cubic yards of earth to an acre, may expect about as much in product as the man who plows only half a foot deep, and who has to go over two acres to get the 1600 cubic yards of mellow soil.

The author of the address before us, in speaking of the importance of agricultural knowledge, proceeds as follows:—

We come to speak, then, upon the economy of this education, to the farmers as a class. Some of my hearers possibly do not find farming a very profitable business. Some perhaps hardly make the ends of the year meet, and others do not save more than two or three hundred dollars a year, by their hard toil.

This kind of education which is within the reach

of every one who hears me, would help you in the matter of dollars and cents. It would lead you to economise *in the quantity of soil you cultivate*. You now spread your labor and your manure over too much surface. The *average* produce of corn per acre in the state is not over forty bushels. The experiments of educated farmers in Massachusetts and in other New-England states, have demonstrated that a hundred bushels and more can just as well be grown upon the same acre. Premiums upon this crop, in almost all the counties of Massachusetts, have been awarded, varying from ninety to one hundred and forty-five bushels shelled corn to the acre. It takes *more* labor and more manure, but a bushel of corn is produced, at least twenty-five per cent. cheaper, by thorough culture than by the common process. So of all other crops. They can be grown much cheaper on a little land than on a greater surface. The educated farmer would see this and practice upon it. Almost every farmer could sell half of his land and get rich faster on the remaining half.

He would also economise, *by a thorough mechanical preparation of the soil*. Most men own a second farm, beneath their present surface which has never been disturbed by the plow. Indeed, the shallow surface plowing, has only served to harden and consolidate the subsoil. There are more or less of the elements of crops in this subsoil originally, and some of the salts of the manures, with which the surface has been dressed for ages, have found their way down into this "terra incognita." The roots of crops cannot penetrate thither, to get hold of this aliment, and it remains worthless, like undiscovered gold in the mine. There is more wealth of this kind in the subsoil of our farms, than in all the gold of California.

The educated farmer will put his sub-soil plow into this mine of wealth, and give the roots of plants a chance to draw up its treasures, and wave them in the golden harvests. And the result of this mechanical disturbing of the soil, will not only give new pasture ground for the roots of plants, but will put the soil itself, in a better condition to foster vegetation. The soil is loosened, and the air circulates freely, to the depth to which it has been disturbed. The air circulates there, charged with more or less of moisture, and moisture is also drawn up by capillary attraction from the earth beneath, so that the evils of a summer drouth are in a great measure guarded against. So also the excessive rains of spring, and the summer showers, do not flood the crops and destroy them. A more abundant harvest is secured, and larger returns to the farmer's pocket. The educated farmer, will increase the depth of his acres, just as he reduces their breadth and grow rich by the operation.

The New-York *Agricultor* says that in the lower part of Dutchess county, serious ravages are being committed upon the forest trees by a bug. The insects strip the tree of all its foliage, and leave nothing but the naked limbs. They appear to move in straight lines, as they can be tracked through a grove. They eat through a narrow strip, leaving the trees on each side untouched. Their noise resembles the buzzing of a swarm of bees.

Apples for Milch Cows.

We have long been satisfied that one of the best and most profitable crops which any land owner could raise, is sweet apples for milch cows. Late in autumn all cows shrink very much in the quantity of milk they afford, more especially as soon as the sharp night frosts destroy the succulence of the pastures. It is at this period that moderate feedings of sweet apples, say six quarts given morning and evening, have restored the quantity of milk and increased its richness; and a great advantage has resulted where a supply could be had for feeding through winter. An unfavorable opinion of apples, as a food for cows, has sometimes arisen from the furious over-feeding of half-starved animals, which have accidentally broken into orchards, and brought on disease, fever, and consequent drying of the milk by immoderate gorging,—a reason for renouncing such food, would as well apply to the exclusion of oats from horses and cold water from men, because they are sometimes injured by an excess.

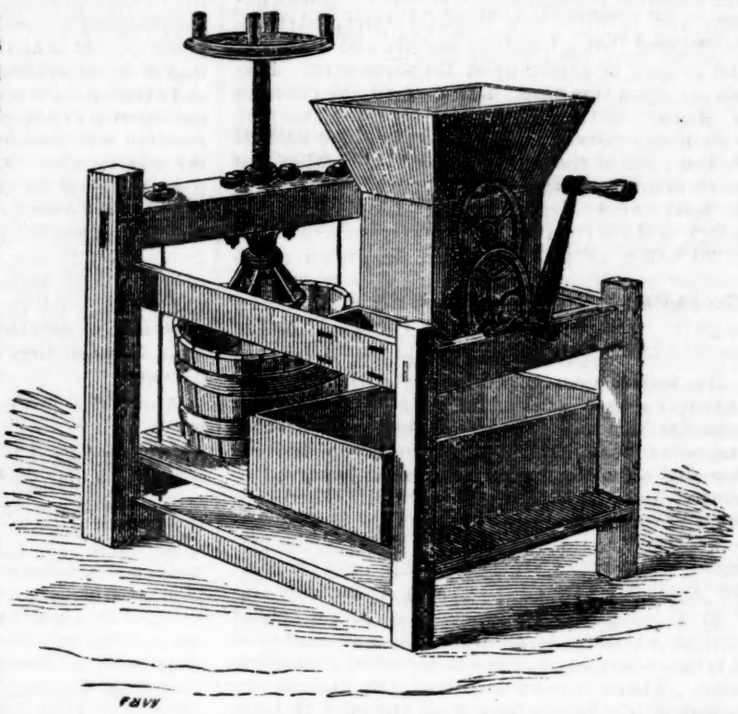
Amid the profusion of tree-planting of late years, we are surprised to see so few orchards set out for feeding domestic animals, by a selection of some particular varieties especially adapted to this very purpose. We want a different sort from those ordinarily selected for table use, which are admired for their pleasant and delicate flavor; while a stock-feeding apple should be in the first place a free grower and most abundant bearer; next, of firm and rather dry texture, and of rich but not delicate flavor. If dry and firm, they are more easily gathered without bruising, more easily kept from freezing, and contain more substantial nutriment than light, juicy, tender sorts. And as a general rule, such apples are the best keepers,—take, for example, the firm and dry English and Roxbury Russets, and the Black Gilliflower, the latter of which has been already proved a good sort for spring feeding, and would be still better if perfectly sweet. The present is likely to be one of the most abundant fruit seasons ever known; and we believe that a more acceptable service could not be rendered by pomologists to the enlightened agricultural public, than a thorough examination among the innumerable native apples, for a pre-eminently productive sort, adapted to stock-feeding. Would it not be well worthy the attention of a state agricultural society, to offer liberal premiums for the best, second, and third new variety that should be presented for this purpose, the decision to be founded on a bushel placed before the awarding committee, accompanied with statements, properly authenticated, of the size and age of the tree, treatment, present crop, and former character for bearing? We should like to see something of this kind attempted, instead of perpetually repeating the same old premiums on what has been well known for a quarter or half a century, all through the land.

It is the *cheapness* of the apple crop, when thus raised under the most favorable circumstances, that strongly commends it to the attention of stock-raisers. A very prolific sort will bear five times the quantity of the ordinary average of table apples; and forty such on an acre of land might be easily made to average ten bushels each annually. The Rhode Island Greening, in Western New-York, has in repeated instances, in a single neighborhood, yielded forty bushels per tree; and in New-England the Baldwin has yielded over

Hickok's Improved Portable Cider Mill.

(Under one existing patent and two pending applications.)

The accompanying figure represents a complete and effective machine—the whole being contained in one frame 2¼ by 3 feet and 4 feet high, the whole weighing 300 lbs. This mill will, attended by two men, when properly worked according to directions, make 6 to 12 barrels of cider a day.



The peculiar arrangement of the cylinders is such that no description of apple will clog it up, but it will at all times work free and fast—qualities that are indispensable, and it is believed no other machine possesses.

The press is provided with a heavy wrought iron screw, and the pressing-box or tub is so arranged that soon as the pressing is accomplished it can be opened in an instant, and the pomace taken out, and it closed as quickly and another charge put under the screw.

No straw or bag is needed, and the cider comes out fast and clear. Any boy 14 years of age can press as readily as a man.

While it possesses all the advantages of the old style press, it has none of its objections. One quart or one barrel can be made any time the owner chooses to use it, and he can work up the apples off of each tree to suit his convenience. The mill is worked either by hand or horse power, and goes very easily.

For list of agents, see advertisement in this paper. Manufactured by W. O. HICKOK, Harrisburgh, Pa.

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fifty bushels. Ten bushels per tree, then, for sorts especially chosen for productiveness, must be a moderate estimate—amounting to 400 bushels per acre annually. If fifty dollars is paid for an acre of ground, and ten dollars for forty young trees and transplanting, the crops from the ground will pay interest and cultivation till the trees themselves begin to afford remuneration. Sixty dollars, therefore, will pay for a bearing orchard; but admitting its cost to be eighty dollars, and the annual plowing, harrowing and manuring, to be ten dollars annually; the whole yearly cost of the apple crop will be fifteen dollars and sixty cents, at seven per cent. interest. That is, it will be a little below *four cents per bushel*, on the tree. No other crop can be raised with so little labor—an important consideration for a country where wages are so high, where no *annual* planting is needed, and where the annual cultivation, entirely dispensing with hoeing, consists only of a single plowing, and a few subsequent dressings with the harrow or two-horse cultivator. in order to produce the very moderate crop we have supposed, and which we believe would in many localities and seasons be doubled, and be afforded at one-forth the cost, or not over one cent per bushel. It must not be forgotten that all these estimates are made on the supposed basis of thorough annual cultivation, giving an immense advatage over the more common practice of entire neglect.

An Example of Ingenuity.

Those who witnessed the trial of reapers last summer at Geneva, were struck with the extraordinary ingenuity displayed in ATKINS' Automaton Raker, which, although failing in its first trial from a defect of material, afterwards, when repaired, performed admirably. J. S. WRIGHT, of Chicago, the proprietor of that invention, gave us at the time, some account of the inventor and of his achievements, and in the last Prarie Farmer we find some additional particulars showing his extraordinary ingenuity and perseverance under adverse circumstances.

J. ATKINS was a millwright; and about ten years ago was so seriously injured by a fall, that he has ever since been wholly confined to his bed, and has been unable to sit up more than two or three minutes at a time. Two or three years ago, a reaper was brought into his neighborhood, and an opportunity given him to examine it from his bed for a few minutes. A farmer present, knowing his great inventive skill, told him "if he would only attach a raker to it, it would make his fortune." Being a son of poverty as well as affliction, his friends also being poor, the remark awakened his thought and determination. Various plans were successively formed and abandoned without trial further than a small model, till a year last winter, he struck upon a wholly new arrangement. Having mentally studied out the details, he ascertained by mathematical calculation, before making any part of his model, the size, movement, and effect, of each separate piece; and when the model was completed and put together, every move-

ment corresponded with the calculation to the utmost nicety. Inventors usually make an imperfect model, and afterwards alter and add indefinitely; but this appears to have been completely matured before any portion of it was constructed, and what is extraordinary, the full sized machine is scarcely a variation from the original model. Atkins knew nothing practically of grain-cutting, having from a boy closely devoted himself to his trade until he became a cripple, and he had never seen a reaper but once, and then not at work; yet so correct were his arrangements, that in every case where mechanics deviated from his plans, failure was the result, and his wishes had to be followed in every particular.

Such ingenuity as this should not be permitted to slumber; and although its possessor may be confined to an obscure room by bodily disease, the thoughts of his mind may yet control thousands of strong-limbed and able-bodied men. [See advertisement of Atkins' Self-Raking Reaper in this paper.]

Cross-Production of New Varieties of Wheat.

This is a subject which as yet has scarcely obtained a moment's attention from even our most enterprising and scientific farmers, and we deem it, therefore, particularly worthy of a few remarks. As the same general principles which govern theimprovement of varieties of domestic animals, are applicable in the production of new varieties of plants, and the breeding of animals is so much better understood, we shall, as occasion requires, refer freely to the latter.

There are two leading principles on which the improvement of animals depends, viz, that "like produces like;" and, at the same time, that the progeny varies more or less from the character of the parent. The first principle enables the breeder to preserve in the offspring, at least in a great degree, the good qualities he has once obtained; and the latter, while it admits of some departure, gives an opportunity for improvement occasionally, although the product may more generally fall below the original. Were the first an inflexible rule, the progeny would always be an exact copy of the parent, and no change could ever be effected.

On a similar principle, much improvement has already been made in the varieties of farm and garden plants. An intelligent New-Jersey farmer, many years since, increased materially the productiveness of his corn, by a long continued practice of selecting the finest ears, and from the most prolific stalks. A skilful gardener, by a few years attention in choosing those only the soonest ripe, rendered his Washington peas at least one week earlier than his neighbors! And if every gardener should always select some remarkably fine specimens of turnep, or cabbage, or raddish, for the production of his seed, he might not only maintain but increase the excellence of his crops. On the other hand, as our best sorts of grains and vegetables have already been brought up to a high degree of perfection above their original type, they tend continually to fall below this height, when reproduced from seed, and hence no cultivator can expect to maintain their character if he does not select continually the best, or else procure successively his seed under the name of new and improved sorts, raised by others who have adopted the system of selection.

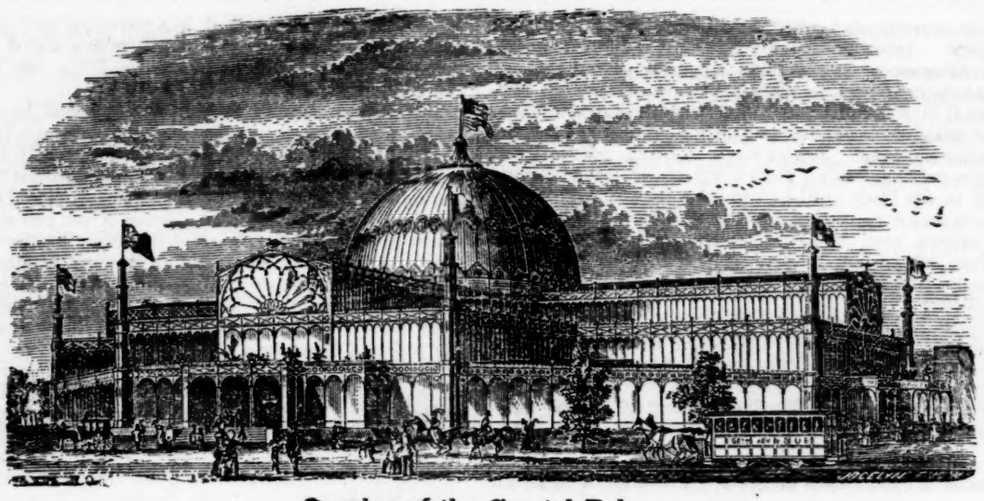
The best breeders of domestic animals find, however, that a simple and continued propagation from selected specimens is quite insufficient for their purpose, and hence they are compelled to resort to the bolder process of crossing, by employing two unlike animals, so that among a numerous progeny, some may be found that shall combine the best qualities of both. This was, in part, the origin of those superb breeds, the improved Short-horn cattle, and of the Anglo-Merino sheep. The same principle in propagation has been applied in the production of new fruits; for while Van Mons obtained some excellent new pears through great and extensive labor, by successively planting the seed of the same individuals; Knight obtained, in a more easy and shorter mode, namely, that of crossing, those celebrated sorts, the Coe's Golden Drop plum, and the Elton and Early Black cherries.

But while so much has been accomplished by cross-breeding in animals, and the subject of cross-production of fruits is by no means neglected, it is certainly a matter of surprise that the application of this process to our farm grains, and more especially to wheat, should never have claimed more attention. Some of our best sorts of wheat appear to have originated merely by the accidental discovery of single stalks growing in the field, and exhibiting a superior appearance to the rest of the crop—owing partly, perhaps, to an accidental variation from the seed sown, or possibly through the influence of the pollen of other sorts.

In order to comprehend something of the importance of improving wheat by crossing, we have only to look at the value of the whole wheat crop of the country. It has been estimated that the aggregate increase in value, in Western New-York alone, consequent upon the introduction and general use of Soule's improved variety, amounts to no less than thirty thousand dollars yearly; and if the whole wheat crop of the United States amounts annually to one hundred millions, the general introduction of a superior variety that would yield but one-hundredth more than the present sorts, or a few quarts more per acre, would be worth a million dollars per year. Now, what state agricultural society is willing to offer five hundred dollars as a prospective premium for the best variety of wheat obtained by cross-impregnation, provided it shall prove worthy of the premium? How could our national government expend more wisely or economically ten thousand dollars, than in premiums for new grains that would be worth a million dollars yearly?

The only attempt we have ever met with on record, at crossing the varieties of wheat, is that of Hugh Raynbird of Hampshire, England, reported in a late British periodical. He selected two distinct varieties—one a coarse red variety, with a short, thick-set ear, and with a short and stiff straw, known by the name of Piper's Thickset, and the other the Hopetown wheat, a white-headed sort, with a long ear and a long straw, and containing more than an average number of grains of a fine quality. The process of impregnation was as follows: As soon as Piper's wheat came into ear, the glumes were opened, and the three anthers removed from each with the point of a needle, when the whole was again very carefully closed. The operation required much time and patience. A few days afterwards, when the pollen of the Hopetown was in a fit condition, the glumes were again opened and the stigmas dusted. But the manipulations of art never equal those of nature; and as a consequence, only a few thin kernels were obtained from each ear. These were, however, planted, and the roots afterwards divided to increase the product. At harvest, all the ears had the red chaff and grain of Piper's Thickset, and many were not changed at all; in some, only the upper part of the ear resembled Piper's, while others resembled the Hopetown in the shape of the ear and the length of the straw. The next year all the seed was destroyed by a fire, except a few ears that had been forwarded to another part of the country—these served to retain the sorts. The results are stated to be so far satisfactory, although several years must elapse before the value of the sorts can be fully ascertained. The following plan is adopted to ascertain the exact product per acre, on a small scale: Two boards, each 6¼ inches wide, are perforated with holes to admit a dibble five inches apart, so that each plant occupies a space of half a link, or the 100,000th part of an acre; or by omitting every alternate hole, the space may be increased to two links. When one row is planted, the board is moved forward; in this manner the most minute exactness is secured.

In judging of the value of new varieties of any vegetable production, the mode of intended propagation will have an important bearing. Where, for example, they



Opening of the Crystal Palace.

The Crystal Palace at New-York, a view of which is given above, though yet unfinished, and the articles for exhibition only partially arranged, was opened Thursday, July 14, and the inauguration ceremonies took place. The exterior of the building has a very graceful, airy appearace, and its proportions are so perfect that one is deceived with reference to its size. The effect of the dome, supported by the slight walls of iron and glass, is magnificent. It seems almost suspended in the air and held in its place by the American flag, floating proudly above it. The Palace is enclosed by a neat fence, and when the building materials are removed, will look very tastefully.

are continually reproduced from seed, they should, if possible, possess a degree of permanence to prevent rapid deterioration. It is well known that some celebrated breeding animals have their characteristics stamped with much uniformity on the offspring, while the progeny of others is quite unreliable. So also some plants preserve the identity of the variety under continual reproduction from seed, much better than others. Those permanent sorts will of course be the most valuable, other things being equal. But this difference will be of no consequence whatever with those plants that are propagated by a section of the same individual, as in potatoes by cuttings of the tubers, in fruits by budding and grafting, and in grapes, currants and gooseberries, by cuttings and layers.. The *same* individual is here only multipled in number, no *new* one is produced; and hence no *permanent* change can possibly be produced in a variety of the potato by selecting large or small tubers, or by cutting them into pieces. The only influence is *temporary*, affecting the supply of nourishment or moisture to the young plant, or the number and consequently size of the tubers. For the same reason, no permanent change is ever made in a variety of fruit, by grafting into various kinds of stocks, by transplanting into a poor or a fertile soil, by root pruning, applying saline solutions, &c., and no culture given to any variety of the grape, can ever improve that variety or affect its period of maturity; such a change can be effected only by the production of new sorts through the seed.

Successful Trenching and Subsoiling.

Many of our readers have doubtless become acquainted with the successful farming of LINUS CONE, of Oakland county, Michigan, at present an editor of the *Farmers' Companion*. His success depends on his energy and good management generally, but in a very great degree on the perfect tillage given to his soil. In the first place his land, which was hard, stony, and tenacious, was thoroughly cleaned of stumps, stones, and all other obstructions to the plow. The rule was then adopted, never to plow less than about *one foot deep*, for which purpose three strong yoke of oxen were usually needed,—the plow used was a modified double Michigan. He usually plowed but once, depending on the harrow and cultivator for pulverization. In some instances the subsoil plow gave additional depth. A field possessing considerable *descent* was subsoiled 20 inches deep. The descent obviated in a measure the necessity of underdraining, which on more level land would have been absolutely essential. Draining has, however, been adopted to a considerable extent, and provision made for the removal of surface water, by dead furrows cleaned out to a depth of 16 inches, and leading towards the under drains. Now, the result of all this care and labor is, that he has not for many years past, failed to obtain a good crop of wheat, corn, barley, oats, turneps and hay; and in favorable seasons, fruit has been abundant. An upland meadow, which had been deeply subsoiled, yielded, during the past season of severe drouth, three tons of dried fodder per acre, while adjoining land, treated in the ordinary way, and more moist in its nature, "did not produce one quarter of this amount." The corn showed no signs of drouth, and maintained its dark green color. The pastures were nearly as green as in spring.

Manure.—Good farmers are not apt to improve largely in one direction and neglect others, and hence we find that this energetic manager saves everything in the shape of manure. A tank is sunk a short distance from the kitchen, and a wooden duct conveys all the soap-suds, wash, &c., into a bed of muck, turf, or rich earth, here deposited with all animal refuse. This forms manure of extraordinary richness. A box containing several bushels of charcoal receives all the urine, and when saturated is emptied into this tank.

☞ Whoever wishes to harvest the tears of pity must sow unsparingly the seeds of generous love.

Cheap Fences.

In most of the newer portions of the country, the old-fashioned zigzag rail fences still prevail, and where timber is abundant, do not cost one-third the amount required for good post and board fence. Many of them are made wholly of rails, without any protection at the corners, and are consequently easily thrown down by cattle, colts, and the wind. A firmer fence consists in the addition of stakes and riders; but the stakes projecting two feet beyond the fence, the whole occupies a strip of land at least ten feet wide. Placing the stakes *upright* at the corners, and connecting the two opposite ones near the top by means of a loop of annealed or small telegraph wire, is a great improvement, occupying but little more than half the ground required for the former. Another modification, equally efficient and as saving of land, consists in placing the riders, (for which long poles are best,) in a straight line on the top and at the center of the fence, and then placing upright stakes in each inner corner between the rider and the fence, the lower end nearly resting on the ground, and the other wedging closely between the top rail and rider.

The following figures, showing a ground plan of each fence, will serve to make their construction plainer, and to exhibit their several advantages:

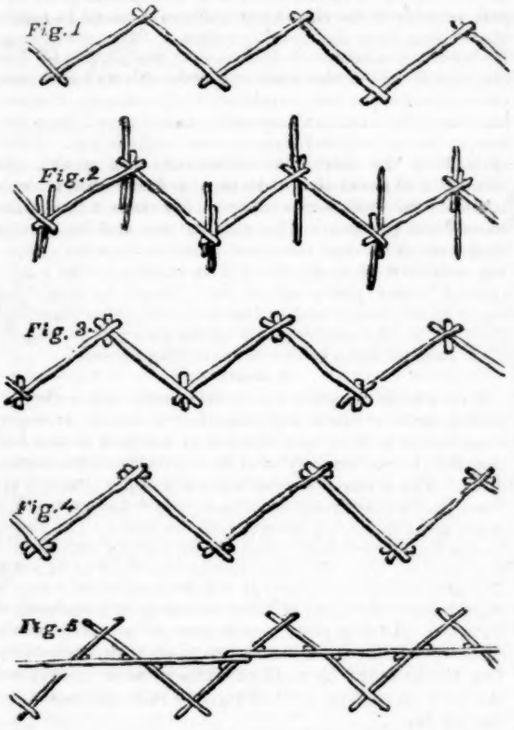


Fig. 1, represents the simple zigzag fence, as seen on careless farmers' grounds, without any stakes.

Fig. 2, is the common "staked and ridered" fence, somewhat substantial, but occupying too broad a strip of land.

Fig. 3, is a better arrangement, with upright stakes placed at the opposite corners, and the two connected and held loosely to their places by a loop of annealed wire.

Fig. 4, is similar to the last, but is better, inasmuch as the stakes are placed in the *acute* corners, and therefore maintain their places better, and brace the fence more firmly than if placed in the *obtuse* angles, as in fig. 3.

In fig. 5, the bracing is still more perfect, but the fence has not the neat appearance of fig 4. In the two last, the stakes need not enter the ground, but may rest merely upon the surface, and hence short pieces of timber, broken rails, or any sticks five feet long will answer, provided they are connected by wire about two-thirds or three-fourths of the height of the fence. These two modifications, then, are more economical in construction as well as in the length of the stakes, no holes being required for the insertion of their lower ends. Less strength of wire is needed for these, as the stakes are more securely held in the acute angles.

On Salting Hay and Cattle.

In perusing the last number of the COUNTRY GENTLEMAN, I noticed an article on "Salting Hay," which does not, in all respects, accord with my views and experience on that subject. The writer seems to think that the only way to salt hay *evenly and properly*, is to have an extra hand stationed on the *hay-mow*, whose business it shall be to salt each forkful of hay as it is thrown from the fork. The old practice of salting each load after unloading it, he condemns, because salt will not rise up so as to benefit the hay above it, neither will it go down so as to benefit the hay below it, but will remain on top of the hay, and consequently make a small portion of each load very salt, while the bulk of the load will not derive any benefit from the salt.

For years I made a practice of salting all of my hay in the maner last described, and never experienced the least trouble in not having all of it evenly and properly salted. I take pains in mowing away the hay, to spread it evenly over the mow—then apply the salt, say about four or six quarts per ton, which settles down into the hay, thus salting all alike.

For two years past I have adopted another method of salting my stock, which I think is a much better way than putting it on the hay—only taking care to have it put into the mow in good order. When the foddering season commences, I place a trough in the yard where the cattle are kept, and in it keep a good supply of salt. This gives each cow a chance to get just what salt they require, which it is very difficult for them to do when the salt is applied to the hay.

I suppose there are some who have been in the habit of salting their hay, that will be rather incredulous, and not be willing to risk a trial. To such I would say that I have tried it with a stock of fifty cows, some sheep, and young cattle, for two winters past, and I must say they have done better than they used to on salted hay. The usual method of salting cattle once a week through the summer, is not as beneficial to the thrift of animals as supplying them with salt so that they may have it at all times; yet if this will answer in summer, when the feed is green and succulent, why would it not answer as well, and even better in winter, when they require much less salt. By feeding each separate, they are not obliged to over-eat of one to satisfy the appetite for another. A SUBSCRIBER. *West Pawlet, Vt.*

Transmutation of Plants.

A very able article on this subject, in the *Pennsylvania Farm Journal*, evidently from the pen of that eminent naturalist, Dr. DARLINGTON, who is well versed in the history of the various opinions which have prevailed during the last five centuries on this subject, gives the following pithy summary of these opinions:

The worthy disciples of this doctrine, in the "good old times," not only believed (with their followers of the present day,) that wheat would turn to cheat, or chess, but they contended that it would often turn a whole series of somersets; going off first into rye, then from rye into barley; from barley into *lolium* or darnel; from lolium into bromus or cheat; and from cheat into oats. They even thought these vagaries could be inverted by by a good soil; and that, with skillful management, the erratic plant might be made to retrograde towards its pristine state, at least as far back as rye!

Root Crops and Straw for Cattle.

Robert Baker, an eminent English Agriculturist, gives the following as a summary of his practice in feeding roots in connection with other food, and which he has found to be very successful. Our readers may derive some valuable hints from it. The advantages of mixed food over feeding single substances to cattle are well known:—

"The mangold wurzels, or Swede turneps, are plucked (not sliced) with a machine constructed by myself, of which many are now in use in this district, and consists of a revolving cylinder, into which hooks are inserted, acting against a row of knives to facilitate the operation, and which *plucks* the roots of Swede or other turneps, and mangold wurzel, into small pieces from the size of an egg downwards, thus avoiding the sharp edges produced by turnep slicers, and preventing the choking of the animals, as well as facilitating the readily mixing them with the cut chaff. The latter is cut into 1½ inch lengths, in the proportion of one part of hay to three parts of straw, and is moistened by an application of linseed meal that has been previously steeped forty-eight hours in cold water, in the proportion of 1½ lbs. to 2 lbs. for each bullock, to which is added 4 lbs. of barley-meal, sprinkled in the chaff. The morning meal is prepared the evening previous, by mixing one bushel of the plucked roots with about two bushels of cut chaff, prepared as above; and in the morning the evening meal is prepared in the same way. If it is found the bullocks will eat more, it can be increased by adding chaff only, or with a further admixture of the roots. The advantages of this mode of feeding, will, upon experiment being made, become at once apparent. The bullocks will thrive faster, and will never be relaxed, as is too frequently the case when fed upon the roots by themselves, and the quantity of the latter per diem may be exactly apportioned. They will also eat the chaff cut from straw without hay, if found desirable. But when fed upon the roots alone, they will not rest satisfied until they have had their fill, and then will refuse chaff cut from straw altogether. The stomach of ruminating animals is larger than that of other animals, and requires to be filled before they will lie down to rest; and the large quantity of roots they will consume (if allowed to be fed without restriction) becomes absolutely injurious to them, while 50 per cent. more will be consumed with less benefit to the animals.

If oilcake is bruised and steeped in the same way, it will be found more beneficial than when given alone, and the whole of the tnuritive properties will become extracted, as will be at once perceived by the difference of the manure; but the latter, of course, will at the same time not be so valuable.

With store stock one bushel of roots with cut chaff is sufficient, and one or more pounds of linseed meal per diem may, if required, be added; but if an attempt be made to keep them upon one bushel of roots, given separately, they will pine after more, and remain constantly restless and dissatisfied. The vegetable food may also be "marshalled to meet the jaws," and an exact calculation made of the extent of time they may be required to last."

Stripping the Osier.

I saw in the October No. of the *Farmer*, an inquiry, "if there is a machine to take off the bark of the Osier, or basket willow, faster than by hand." I have never heard of a machine that will do the work without the assistance of the hand; but I herewith send you a little instrument which is used in Germany and wherever the Osier is prepared for baskets. It is very simple—nothing more or less than a round stick of hard wood about an inch thick, and a foot long. Quartered about half the length of the stick, and two opposite quarters cut off, so that it will leave a sharp edge on both the remaining two. Take the stick in your right hand, insert the willow with the left, in the slit; press the thumb and fore-finger of your right hand, and pull the willow through, and the bark is loose. But there is one thing that must be considered—the time or season when the bark ought to be stripped off If you prepare your willows for market, you have to cut them in the spring when the sap starts freely, as soon as the buds begin to swell. Warm, sunny weather is best. As fast as you have a little bundle stripped, cure them, by laying them in the sun until they are perfectly dry; then you may tie them up in bundles, three feet round the butt end of the bundle, and stow them away in a dry place, else they will mould or mildew and will not be good. They should be kept free from dust. With a little experience any one will find out how to do it as well as when the time for cutting is past. None but one year's growth are used for weaving the baskets; but small two year's growth are used for bottom sticks, and larger ones for handles. P. SCHMITZ. *Harmony, Jan.*, 1853.]—*Wis. and Iowa Farmer.*

Neutralizing Offensive Odors.

The North British Agriculturist furnishes a statement of LINDSEY BLYTH, in relation to a very successful experiment for destroying a most offensive smell in a stable, arising from the decomposition of urine and dung. He tried the mixture of Epsom salts and plaster of Paris, (gypsum)—"the most wonderful effects followed—the stable keeper was delighted." Previously, the stable was damp and unwholesome; and if closed for a few hours, the ammonical vapors were suffocating. After sprinkling the sulphates underneath the straw, and along the channel of the drain, the smell disappeared, and even the walls became drier. He recommends as an economical preparation for this purpose and for sewers, magnesia limestone dissolved in sulphuric acid, (forming sulphate of magnesia or epsom salts,) with a portion of super-phosphate of lime (made by dissolving bones in sulphuric acid)—these, at the same time that they retain the escaping ammonia, also add greatly by their own presence to the value of the manure.

RAT-PROOF GRANARY.—A late paper gives the following mode of rendering granaries rat-proof, proved by a successful trial of ten years, and founded on the fact that *tar* is particularly offensive to these little scoundrels. The studs of the outside walls of the granary are "set in," so that a cat may pass round between these walls and the outside boarding of the barn. The lining to the floor is first laid; then the first siding board round the bottom; then, for convenience the floor is finished, and afterwards the siding or walls completed. Tar is placed along the edge of every board as it is fastened to its place, and a copious application of tar given at the corners, where rats are most apt to do their tunnelling. Let the door-sill be made of hard-wood scantling, and the door be always kept shut, and rats will never see the inside.

THE GREATEST MILKER WE KNOW OF FOR A TWO-YEAR OLD HEIFER.—Mr. Daniel B. Haight, of Dover Plains, Dutchess county, writes us as follows: "I can show you a fine two-year old Exeter heifer, when you visit Dutchess, which I hope will be soon. She has given *twenty quarts of very rich milk per day*, and she has a fine heifer calf got by Mr. Sheafe's two-year old bull."

"Exeter," referred to above as the sire of this extraordinary heifer, is registered in the English Herd Book as the "Duke of Exeter" (10,152.) He was imported in 1849, by Mr. J. F. Sheafe, of Dutches county, and was purchased at his sale of stock in August, 1850, by Mr. L. F. Allen, of Black Rock. Thus far he has proved one of the best stock getters ever brought to America. —*Agricultor.*

The Dairy.

Manufacture of Cheshire Cheese.

(Continued from page 215.)

The "breaking" and "gathering" of the curd is the next process. This used formerly to be done by means of the hands and skimming-dish (a practice still continued in some dairies); but the *curd-breaker* is now generally made use of for this purpose. It is made of wire-work, in an oval form, and has a tin rim round it about an inch and a half broad. This wire cuts the curd, by being passed through it perpendicularly, *very* gently at first, and in different directions, so that the whole mass is separated in very small portions. The length of time required for the operation depends upon the quantity of curd; for a 60 lb. cheese the operation often takes twenty or twenty-five minutes. After this, the curd is left for a quarter of an hour to separate from the whey, and, if the weather be cool, the tub is covered to retain the heat. The curd having separated, which it does by sinking, a portion of the whey at the top is then taken out by the portable brass or tin pan before alluded to, being *pressed* into it, and emptied into the *set-pan*. The curd is then gently broken by the dairy-maid and her assistant passing their hands down to the bottom of the tub, and buoying up a portion of the curd at each time to the surface, or by again using the curd-breaker. The curd having been brought to the top, is easily seized, and separated into smaller portions, and the whey thereby released. This operation takes about half an hour. After the expiration of another (or so soon as the curd is considered sufficiently settled—for there is no saying to five or ten minutes how long each particular interval of rest should be), more whey is taken out, and the curd afterwards drawn as much into one half of the bottom of the tub as its loose texture will admit of.* Upon the curd is then placed a semi-circular board adapted to the size of the tub, with a weight of about 30 lb. placed upon it. This board is perforated with holes, about half an inch in diameter, to allow the whey to escape through. The tub is now set three or four inches atilt to drain the whey more readily from the curd, and to admit of its being collected and carried off. The skimming-dish is again required to lade out the whey. The whey, on its way to the set-pan, is passed through a sieve, to collect any curd which may happen to be floating in it. This curd is what is called *slip curd*, which by some is not returned to the tub, for the reason I have before stated. The weight and board are shortly taken off, and such part of the curd as has been squeezed from under them is again collected on one side, and a heavier weight (say 50 lb. or 60 lb.,) applied as before. As the whey escapes from the curd it is laded out. In the course of a quarter of an hour the board is again removed, the curd cut in intersections of six or eight inches apart, to assist the discharge of the whey, and the board, with additional weights (about double the last), again applied. Some dairy-maids now add the slip curd. The weights are again increased if it be thought necessary; observing always to *let the pressure which is applied be gradual, and regulated by the degree of compactness of the curd*, for if this is not attended to now, as well as afterwards, a considerable portion of butyraceous matter will be forced out and the cheese of course deteriorated.

The curd is again cut into square pieces, taken out of the cheese-tub and broken a little by the hands as it is passed into the "thrusting-tub." (In some dairies a large sized cheese-vat, in others a willow basket is substituted for the thrusting tub.) In this the extraction of the whey is afterwards continued by the application of "the screw," of which there are two or three kinds, but all on the same principle. The old plan of *thrusting*—and from which the *term* is no doubt derived—was by means of a pole four or five yards long, fixed at one end into an upright post, whilst at the other was seated a lusty lad or a man, who kept regularly pressing down the pole upon the curd, the pole acting as a lever. Both poles and men are now almost entirely expelled from the Cheshire dairies; and the *screw* is also likely to be superseded by the "lever press." The advantages of this over the screw are *that it sinks by its own action with the curd—any degree of pressure required can be applied and gradually increased, and less attention is necessary;* whereas the presure from the screw is sudden and uncertain, and having no self-action, requires the dairy-maid s assistance every five or ten minutes to render it effectual.

The "thrusting-tub," in which the curd has now to be pressed, is round, and is perforated with holes at the sides and bottom for the whey to escape through. Before the curd is put in, a "cheese-cloth" of the coarsest kind, about one and a half yards long and a yard wide (or of dimensions sufficient to contain the curd), is placed in it.* In this the curd, after being broken, as before stated, is enveloped, and a "sinker," or strong circular board, which fits the inside of the tub, placed on it. Upon this the screw (or lever press, if used) is let down, and the power gradually applied.

To assist still further the discharge of the whey, long iron skewers are introduced through the perforations in the tub, with their points directed upwards, so that when the skewers are withdrawn there is a drain made for the whey to follow. These skewers do not remain in more than five or ten minutes; the pressure is continued a little longer. The curd is now cut *through*, in intersections of two or three inches apart, with a large *dull* knife, so as not to injure the cheese-cloth, and the edge or corner of the curd is cut off all round, and placed in the centre. After this the pressure is again applied, and gradually increased, and the skewers introduced and withdrawn as before, after the lapse of about fifteen or twenty minutes. The curd is then taken completely out of the tub, cut into four or five pieces, and each piece broken separately with the hands to about the size of two or three inches square. A clean dry cloth is made use of, the curd folded in it, and again pressed and skewered. These operations are repeated until the whey is sufficiently extracted to admit of the curd being *salted*, which is the next part of the process.

If the milk is set together at six o'clock, and the coagulation takes place in an hour and a quarter, the breaking, gathering, and preparation for salting is generally accomplished by eleven or twelve o'clock.

This is merely mentioned as some guide to the *new beginner*, who may not be able to judge from the state of the curd when it is fit for salting. I may here observe that it is the practice in some dairies to salt the curd, while, in my opinion, there is *too much whey in it*.

The *quantity of salt* used is regulated by some old custom, or by the fancy or taste of the dairy-maid, and with about as good a chance of correctness as that with which she regulates the temperature of the milk by the touch. That clever and experienced persons may determine the proper quantity of salt in this way tolerably well, I admit; but there are many others who *fall into error*, and all *for want of some fixed rule*. If there be a certain proportion of salt which would answer the purpose best, which there doubtless is, why not ascertain and adopt it?

"In all dairies," (says Mr. Wedge, the author of the original 'Report of the Agriculture of Cheshire,' written many years ago, but still equally true) "the same points are admitted to be essential, but although the

* At this stage, it is the practice with some dairy-maids, when they suppose the curd is colder or more tender than it ought to be, to return a few gallons of whey after it has been heated over the boiler in the brass pan into the tub again, to assist the discharge of the remaining whey. If, on the contrary, the curd is found warmer than is intended or desirable, which is sometimes the case in hot weather or during thunder, a few gallons of cold water are applied to prevent the curd becoming tough. These inconveniences would, in my opinion, seldom if ever happen if a thermometer was used at first, and the proper heat at that time adhered to.

* *Cheese-cloths* are *linen*, of a rather closer texture than canvass, and made for the purpose. The coarse kind are sometimes termed *screw-cloths*.

means of obtaining those are, upon farms similarly circumstanced, so far alike, as to differ materially in the minutiæ only, yet upon these minutiæ much of the art of cheese-making depends.

"That an exact uniformity does not prevail in every part of the process, is no wonder; for there is not any of the business which is conducted in a dairy which tends to chemical exactness. Where there is no precision, there can be no just comparison; and where no comparison can be made, there exists no foundation for an attempt at uniformity. *The degree of heat at setting the milk together is never measured, the quantity of steep is guessed at* and its quality not exactly known; *the quantity of salt necessary is undefined, and the sweating or fermenting of the cheese, when made, is accidental.*"

As an antiseptic, a certain quantity of salt is necessary; it is the same in this respect with cheese as it is with butter or bacon. There may be, and no doubt are, differences of opinion, both amongst makers and consumers of cheese, as to the degree of saltness which is best; and it may be necessary, in order to suit the palates of the *many*, that there should be a *variety*. I am willing to admit the force of the argument, so far, that there might be these shades of difference in different dairies, but think that they ought not to exist in one and the same dairy. Each maker strives at uniformity as regards the *thickness* and *color* of his cheese, and would like also to attain uniformity in flavor if he could. Why not, therefore, measure or weigh the alt before using; regulating the same by the quantity of milk or the weight or quantity of curd?* The former would easily be ascertained by means of a *gauge*, or graduated rod, which any farmer might make for himself, to suit his own cheese-tub. The way to make it would be to pour into the tub a gallon of water, or any liquid, and then to note its height, and mark it on the rod. This being done, put in another gallon and again mark the height, and so on until the tub is full; taking care afterwards to introduce the rod into the *same part of the tub*, as the bottoms are not often level.

It has generally been considered that a gallon of milk (supposing little or no cream has been taken from it) will produce upon an average of the season 1 lb. of saleable cheese; that is, when the cheese is four or five months old. In autumn there is always more curd from the same quantity of milk than at any other part of the season.

During wet weather there will sometimes be more milk than usual, though not a proportionately greater quantity of curd. An experienced dairy maid soon detects these different results, and makes allowances accordingly. I have met with no dairy maid who regularly weighs the salt; but a highly respectable farmer, whose wife makes a first rate cheese, has given me the weight used in his dairy, as near as the same can be *computed*. It is as follows:—

	lb.		lb.	oz.	
In March and April their cheeses average about	30	and about	0	10	of salt is used.
In May, June, and July,	70	"	2	0	"
In August,	60	"	1	12	"
In September,	50	"	1	4	"
In October and November	30	"	0	10	"

In the above instance it will be seen that more in proportion was used in summer than at other times, and that the average is one lb. of salt for 40 lbs. of dried cheese (or say forty gallons of milk).

I was favored with an account from another dairy in which, to oblige me, the salt *for once* was weighed. For a cheese which weighed 46 lbs. a few days after making (say 42 lbs. at four months old) 1 lb. 1 oz. was used. This is also after the rate of 1 lb. of salt for 40 lbs. of dried cheese, and was said to be the quantity uniformly used throughout the year in this dairy, which consisted of about forty cows.

A third account is from a dairy of sixteen cows: the quantity of salt used was generally about 1 lb. for 45 lbs. of cheese; but the dairy-maid made a trial last year with one cheese, using only three-quarters of a pound. The cheese was made at the beginning of June, and when weighed in the middle of September was 42 lbs. This cheese was admitted to be better than the others in the same dairy.

The salt termed the "middle grained" is the kind generally used; but some use "fine." Before applying it the curd is cut into three or four equal sized pieces, and each of these is broken into smaller pieces by hand, or is passed *once* through the curd mill.* The salt is then scattered over it, and the "breaking" continued either by the hands, the curd-mill, or both, until the salt is well intermixed, and the curd perfectly crumbled. Each portion as it is broken is put into the cheese-vat, in which has been first placed a clean and rather finer cloth than was used for the previous process, and the curd is compacted as much with the hands as possible. To admit of the curd being properly pressed, it is necessary to put it into such a vat as it will *overfill* by at least two inches. It is also rounded up a little in the middle. The cloth is then brought over it, and tucked in at the edges of the vat with a small wooden knife or other dull-edged instrument. In order to support the outside of that part of the curd which is above the vat, and to keep it in proper form when the press is applied, a tin or zinc hoop or "fillet," the edges of which are rounded off so as not to cut the cloth, and the ends lapping over and unattached, so that the same fillet will do for different sizes of cheese, is introduced round the inside of the top of the vat. The "fillet" thus placed sinks with the curd, and having small perforations in it, the emission of the whey is effected through it as through the perforations of the vat. Since it has become the fashion to make Cheshire cheeses *thicker* than they used to be, it is no unusual thing to see fillets six or eight inches broad.

The vat is now again placed under the screw or lever press, and the skewering is also continued. The pressure is increased at intervals, and the skewers inserted in fresh places to accelerate as much as possible the discharge of the remaining whey or "*thrustings*," as it is now termed.

In the course of an hour from the time of salting, the curd is taken from under the screw or lever press, and out of the vat, for the purpose of being turned upside down, which is done on a table. In the first place, the angles of that side which was topmost in the vat are cut off; a circular piece, two or three inches deep, is often also scooped out of the centre, and both are broken small with the hands and rounded up in the middle. The cloth being drawn over the curd, the vat is then turned down upon it, and re-turning the vat with the curd in it, the other angles and centre part of the curd are broken in a similar manner: after which the tin fillet is put on, and the screwing and pressing is continued as before for about half an hour or an hour. It will, probably, be two or three o'clock in the afternoon before the curd (or cheese, as it may now be termed) *is got under the press;* that is, when it is removed from the screw to the stone press: but where the lever press is used instead of the screw, which, I think, might always be advantageously done, all the change that will now be required is a little more weight at the end of the lever.

Before turning the cheese for the purpose of placing it under the press, it is usual to prick it perpendicularly down with a skewer in several places, for the purpose of making drains for the whey, after having been so turned. A clean cloth is applied, and where the lever press is not used, the cheese is put under one of the lightest of the other kind. A pressure of six, eight, or ten ewt.,

* Since writing the above I have learnt that a farmer in South Cheshire, well known for his introduction of improvements in agriculture, has commenced the system of weighing his curd previous to salting it, and he says he uses salt in the proportion of 1 lb. to 42 lbs. of curd. He also informs me he sets his milk together by a thermometer, and at a temperature of 76° or 77°.

* The *curd-mill* is of recent introduction, and it is only in a few dairies that it is met with; some dairy-maids highly approving, others objecting to it. I think it will soon be more generally adopted, as it effects a saving in time, and breaks the curd more regularly than it can be done by hand.

according to the size of the cheese, will be sufficient. This is generally accomplished by about two or three o'clock in the afternoon. Smaller skewers are now used, and remain (by removing them occasionally into fresh places) until about four o'clock: they are then withdrawn, but the cheese remains half an hour longer undisturbed, to allow the whey to drain from it. It is then, or some time in the evening, turned, a clean cloth is put over it, and the pressing continued. If the lever press be used, the weight may be a little increased.

On the *second day* the cheese is generally turned twice or three times; it is also skewered, and clean cloths are used each time of turning. I would observe here that if any of the cloths are used again before they have been washed and dried in the open air, great care should be taken that they be well *scalded*. The presses used for at least the two first days, and, if possible, during the whole process, should be situate in the dairy, kitchen, or some other moderately *warm place*, otherwise the whey will be longer in discharging, and more liable on that account, from the acidity which it soon acquires, to injure the flavor of the cheese. Another advantage of the lever press is that in cold weather it may be easily removed to a sufficiently warm place, which cannot be the case with common presses. These common presses are chiefly made of one square block of stone fixed in a wooden frame, but are also made of wooden boxes filled with *slag* or other heavy material. They are generally fixed by the walls of the dairy, for the purpose of being stayed to them, and being there most out of the way; when there is not room in the dairy or kitchen, they are placed in the salting room or pantry, which latter places are often much too cold for the purpose, as the whey seldom gets thoroughly extracted when the presses are in cold situations.

On the *third day*, the cheese is again turned once or twice, but ought not to require any skewering. The heaviest press is now had recourse to, and for a cheese of 60 lbs. or 70 lbs. weight about 30 *cwt.* will be pressure sufficient; but some dairy-maids apply as much as two tons, their heaviest press being that weight. A cheese-press of this weight, made of a block of red freestone, would be 3 ft. 2 in. long, 2 ft. 8 in. wide, and 3 ft. 2 in. high.

On the *fourth day*, it is usual in most dairies to discontinue the pressing, but in others it is continued for a day or two longer.

The cheese is then removed to what is called

The Salting and Drying Room.—Sometimes these are distinct apartments, but more generally one room suffices for both purposes. The salt can now, of course, be only applied *externally*; and the good, *if any*, effected is to harden the coat of the cheese. The cheese I have before alluded to, as having been made with three-quarters of a pound of salt, and which *was much above an average in quality*, was removed, as an experiment, *direct from the press to the cheese room.* I am inclined to think this is the better system, or at least that a great deal of the present labor of the salting-house might be dispensed with.

It is obvious, from the practice in this dairy, that it is considered necessary for the cheese to remain in salt longer in the middle of summer than at other seasons.

After this salting, the cheese is well wiped or washed, has a clean bandage put round it, and continues in the same room, or an adjoining one, on wooden shelves, for the purpose of being *dried*. It is turned once a day, and remains until it is considered sufficiently dry for being removed to the *cheese-room*. The length of time for keeping cheese in the "drying-house" varies from seven to twenty days; and is regulated by the temperature of the weather, or the *cheese-room* to which it has to be next removed. In hot weather, and especially if the cheese-room is exposed to the heat of the noon-day sun, the change from a *too cold drying-house* (as many often are, except perhaps in the middle of summer) to a too hot cheese-room, is calculated to cause *cracks* in the cheese, which said cracks have from time to time to be filled up by the application of bacon-fat, or whey-butter, otherwise mites would soon be generated, and the appearance of the cheese detracted from. To prevent this cracking as much as possible, the salting and drying houses have rarely if ever the windows opened, and drafts or currents of air are thereby prevented. This precaution is also adopted in the cheese-room; and, in addition, the light is excluded either by a shutter or *blind*, as I have before stated.

The cheese I have before alluded to as having been made without any *external salting*, as an experiment, and which *was taken direct from the cheese-press to the cheese-room*, was made in the beginning of June, and at the end of September was ready for the *market*. The quality of the cheese was better than that made in the ordinary way, and all the labor of the salting and drying house was saved. My own impression is, as I have already hinted, that the drying-rooms are often *too cold;* and that if it is found to be desirable, as perhaps it may be in some dairies, to continue the use of such drying-rooms, the heat should be kept as near as possible at from 50° to 55°. In concluding my remarks on this room, I must not omit to observe that it is necessary the cheeses should remain *bandaged*, in order to prevent their bulging, and also that they should be turned over once a day. If one cheese be made daily, one will consequently—in the course of a certain time after the season of cheese-making commences—have to be removed every day to the *cheese-room*. When taken to this room, the situation of which I have before described, it is usual to scrape and clean the coat of the cheese, and to place it in the first instance, in the coolest part of the room, often for a few weeks upon shelves or benches, which are cooler than the floor, subsequently upon the coolest part of the floor, and ultimately upon the warmest part. It is usual to continue the bandage or "fillet" for several weeks after the cheese gets into this room, and indeed in some dairies until it is sold. It is also usual to turn the cheeses, and wipe them with a cloth daily, for at least three or four months, and every alternate day afterwards; and when there are any symptoms of cracking, bacon-fat, hogs'-lard, or some other fatty substance, is applied. The floor of the cheese-room is generally covered with dried rushes, or a coarse grass resembling rushes, called "sniddle," or wheat-straw. The floor should be *level*, otherwise the cheeses will not be kept easily in shape; and should be well washed with hot water and soft-soap about twice a year. The temperature of the cheese-room should, when attainable, range between 60° and 65°. When this is the case, the "first make" will generally be ready for the factor by September or October, and the "latter-make" by December or January; but in consequence of many rooms being badly situated and imperfectly heated, the farmer very often does not get his cheese into the market until two or three months after these respective periods. The object gained in having the cheese-room about the temperature I have named is three-fold; the perfect fermentation and ripening of the cheese, the reduction of labor, and the quicker return of *profit*.

It is usual in this county to sell the cheese by what is termed the *long hundred* (120 lbs. to the cwt.), but the factors often require 121 lbs. The price varies with the quality of the article, the state of the market, and the size of the cheese, for large cheeses always sell for more per lb. than smaller ones. There is perhaps nothing more difficult to ascertain than the average price of cheese, inasmuch as both farmer and factor make the price a secret. The highest I heard of last season was 72*s.* per cwt. of 120 lbs., or a little more than 7*d.* per lb.; the lowest would probably be about 40*s.* or 45*s.*

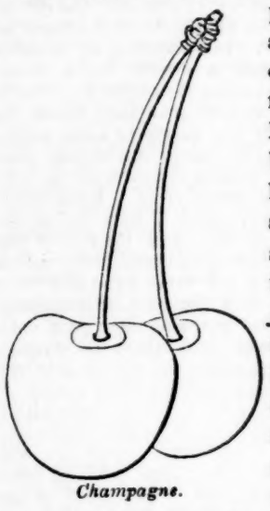
Conclusion.—I am aware that a great deal might still be said bearing on this subject. The various defects of cheese, the great difference in the flavor, the effects of different pasturage and food, and various other matters, might be discussed, but it is considered this essay is already too long and tedious. I cannot, however, close my remarks without expressing my admiration of the industry, cleanliness, and frugrality of the Cheshire dairy-maids. Their labors are great indeed; their cleanliness not to be surpassed; and to their good management it is, that the landlord may often consider himself indebted for the *whole of his rent*.

Horticultural Department.

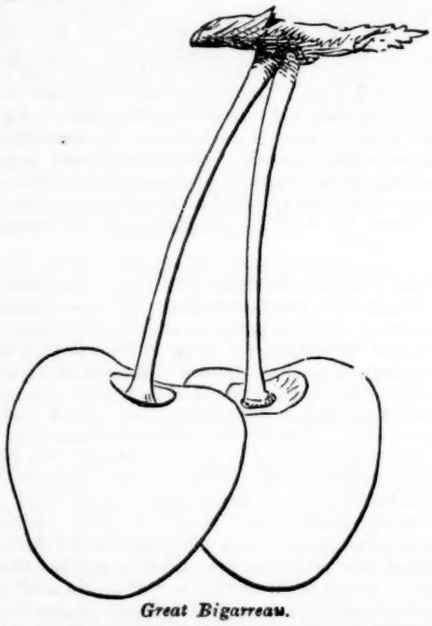
Fine New Cherries.

The following varieties, not yet generally proved through the country, give so strong a promise of value where they have been tested, that they deserve a wide dissemination at least for further trial.

CHAMPAGNE—Raised by CHAS. DOWNING, at Newburgh, where, after several years bearing, it proves to be very hardy, a great and regular bearer, and remarkably free from rotting and blight. Its name was suggested by the peculiar and lively mingling of sweet and acid which its flavor possesses. It does not attain its best flavor until *very fully ripe*. The fruit is medium in size, roundish heart-shaped, always slightly angular or one-sided. Color light red; stalk of moderate length and size, set in flat depression. Season medium, hangs long on the tree. On the whole it is believed that it will deserve a place by the side of Downer's Late, for hardiness and general value.



Champagne.



Great Bigarreau.

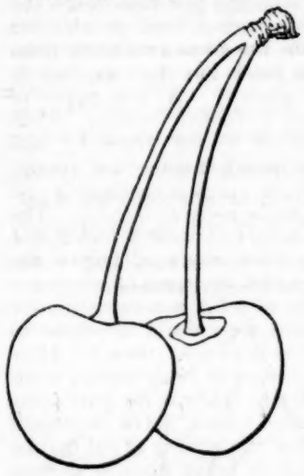
GREAT BIGARREAU—This is a temporary name given by the late A. J. DOWNING, to a superb cherry grown on the estate of L. M. FERRIS, of Coldenham, Orange co., N. Y. The tree was imported some 25 years ago, with several others, from France, and the true or original name has not been discovered. This cherry was pronounced by DOWNING as "unquestionably the largest and most beautiful of all cherries," and L. M. FERRIS, who has long known it, and who is a good pomologist, assures us that its flavor is not surpassed by that of any other cherry known. It has not yet fruited with us, but trees growing from grafts cut from the original tree, possess great vigor and apparent hardiness. The following is a brief description of the fruit: Very large, considerably larger than Black Tartarian, which it somewhat resembles in quality; oblong heart-shaped, high shouldered, surface smooth, deep red, becoming nearly black; stem thick, rather short, deeply sunk. Ripens closely after the Black Tartarian.

August Duke.

AUGUST DUKE—Raised by HENRY VAIL, of Troy, N. Y., and valuable for its lateness, maturing three weeks after Downer. Its habits are that

of a Duke, a brighter red than the May Duke, and greatly exceeding in productiveness the Late Duke, the fruit hanging in thick clusters along the branches. It is obtuse heart-shaped, very regular, and bright, rich red in color, tender, closely resembling the May Duke in flavor.

ROBERTS' RED-HEART—Although not a very new cherry, the merits of this valuable sort were not well known till lately. Although neither large nor showy, its excellence, great and uniform productiveness, and freedom from rot, place it high on the list of cherries. It originated at Salem, Mass.; it is medium size, roundish heart shaped, pale red or amber, mottled deeper; suture distinct, flesh white, sweet, with a fine flavor; season medium.



Roberts' Red-Heart.

Black Knot on the Plum.

It is curious to perceive the different conflicting opinions, adopted from single observations by different cultivators, or from several observations, all under the same particular local influences, in relation this disease of the plum tree. A correspondent of the New-England Farmer has discovered, as he thinks, beyond the chance for a mistake, that these excrescences are the work of insects, as he has uniformly found two different species to inhabit them. One was the curculio; the other a small moth about the fifth of an inch in length. He was puzzled for a time to know which was the real culprit; but as the excrescences appeared a month after the curculio disappeared, he concluded that the mischief came from the work of the moth. Now, what will he say when we inform him that the present season some of our trees have been profusely covered with fresh excrescences almost by the first day of the summer months, and before the curculios had fairly got their cutting tools ready? Again, how are we to account for the circumstance, that in no instance whatever, on our own grounds, have we ever found the slightest trace of an insect in the excrescences, until *months after* they had formed? If insects are the cause, they must be the cause always, and in all places; but if half the plum trees affected have none at all, it seems hard to convince the insect theorists that their opinions are fallacies. The last number of the Horticulturist contains a communication favoring the opinion that the excrescences are caused by still another insect, the *Membracis bubalus*, a tree hopper, or hemipterous insect of the Cicada tribe, which punctures the wood and deposits its eggs in rows in the young twigs. The same difficulty exists here as with the other insects, namely, the knots generally appear (in other localities,) where the closest scrutiny has failed to detect any insect whatever; nor is this all—we have repeatedly observed these rows of deposited eggs in the shoots of the plum and cherry, which remained for several years, with no other result than the scars left by the punctures; and although we have repeatedly seen these marks, and have also been sufficiently troubled with the black knot, it so happens that the two never came together on the same tree.

Watering Trees and Plants.

Many cultivators have very indefinite and vague notions on the subject of watering plants; and hence we often see water given when it is not wanted, and again, when most needed, it is not unfrequently applied in such a manner as to produce no benefit, sometimes positive injury. The great secret of success in watering consists in furnishing just such an amount of artificial supply as the plant needs, without flooding on the one hand, nor stinting on the other. This must be judged of by the actual condition of the plant at the time. If, for example, it should be in a nearly dormant state, when it throws off scarcely any moisture, very little water is needed. Young trees, for instance, which are set out in spring, sometimes remain several weeks without growing, and to flood them at this period, would tend more to cause decay than growth. It sometimes happens that such trees dry up at the top or branches while the roots are kept deluged, in consequence of the want of circulation from the absence of leaves. In these instances it is better not to apply much water, except to the stem and branches themselves; and this, if often repeated, will directly impart moisture to the tree, and not unfrequently stimulate it into a growing state, when other means would entirely fail; because in the absence of circulation, the moisture is applied precisely where it is wanted.

We have known cases where young trees have been actually destroyed by injudicious watering. Again, we have seen trees perish for want of watering. In the latter instances, growth had already commenced, and the young leaves were rapidly pumping the water from the soil up through the roots and stem, and a larger supply was needed than could be obtained. A plant in a state of rapid vegetation will consume or throw off into the air more than ten times as much water as a dormant plant.

When artificial watering is given, the operator should ascertain whether the supply descends sufficiently to reach the roots for which the benefit was intended. It is by no means an uncommon error to pour water on a hard and baked surface, without descending even a single inch below, nor within half a foot of the roots of the plant. Such waterings will of course do more harm than good. It would afford instruction to such superficial operators, to throw up a little of the soil, and witness the dry, ashy earth beneath the thin moistened crust. Water will penetrate freely into a mellow and well cultivated surface; but the removal of a few inches, to be again replaced after watering, will be advisable in most casses where the roots lie deep in the soil.

A hint as to the best time of day for watering, may be derived from an observation of the condition in which natural watering by rain is given. One reason why this penetrates the soil so effectu-

ally, is the moist state of the air, and the shading of clouds, preventing immediate evaporation, and connected with the even and gradual application which showers impart. Hence, watering under the hot rays of the sun should be avoided. evening usually proving the most advantageous time for this purpose; and if several light and successive applications are given, the moisture will penetrate more deeply into the soil.

Mildew on the Grape.

Many years since, when the practice was common of raising the hardier exotic grapes in the open air, and more especially the Early White Muscadine or White Sweetwater, we often had occasion to observe the influence of proximity to the soil in preventing mildew. It frequently happened that every bunch three feet high or more, was badly mildewed, while such as chanced to lie within a few inches of the surface of the earth, were often entirely free from its influence. Whether it was owing to any effect of the soil, which the rains dashed in minute quantities upon the fruit, or to some other cause, was never ascertained, but the subject is certainly worthy of further investigation. We have often heard on the other hand, of grapes escaping the mildew, which were trained high on trees; and in a late number of the Western Horticultural Review, we perceive a statement of S. VENABLE, of Shelby county, Kentucky, that a German near Evansville, observing that grapes within a few feet of the ground were more or less affected with mildew, trained some of his vines twelve or fifteen feet high, and they produced fruit of the best quality, entirely free from disease. In another instance, a vine trained on the walls of a house, to a height of eighteen feet, bore fruit in great abundance, without a blemish. It is not probable that any effectual remedy will be discovered for the mildew on the foreign grape, other than cultivation under glass; but the subject is one of much interest for investigation and inquiries may lead to important results in the management of the native varieties.

Remedy for Black Knot.

In answer to repeated inquiries for the best remedy for the black excresences on the plum tree we can only repeat what we have before given—excision with the knife, when the disease first appears. "But, our trees are all covered with them, and we should have to cut away the whole tree!" Very well; your trees have reached this condition through neglect, and the best thing is to root up and burr at once all such radically diseased individuals, which is certainly no worse than death by the knot, which is inevitable at so late a stage. We have practiced the remedy of cutting for many years past, and have succeeded in keeping the disease in complete check, without ever (except in one instance) being obliged to remove an amount equal to the growth of the tree in one year. But even if it were necessary to destroy half the trees with the knife—this would be better than to have them wholly destroyed with the excresences, to say nothing of the singularly *ornamental* effect, which we have sometimes witnessed, of a dozen half dead and fungus clad trees, occupying conspicuous positions in the garden. Salt water or a solution of copperas, has been recommended as a wash for the wounds when the excrescences have been cut out of large limbs, and chloride of lime may prove still better. As for the "trouble" or labor of continually cutting, we have never found it one half the labor of cultivating properly, and are well satisfied that so easy and generally effectual a remedy is at our command.

Destroying Trees.

A thriving farmer, who had just discovered the loss of a hundred newly transplanted peach trees by the mice, said to the nurseryman who furnished them, "This is a hard loss for *me*, but it will help *you nurserymen!*" A late paper of high character utters a similar opinion, when describing the losses of young trees by bad pruning and other mismanagement—"no wonder that the business of nurserymen is continuous and thriving!" Nothing can be more erroneous. The great increase in the nursery business is owing, not to continued failures by purchasers, but to the improved cultivation which the trees of late years receive, giving promise of a full remuneration for the outlay. How many men would continue to buy and plant trees, only to lose them? How ong would farmers continue to raise wheat, if no crop was ever yielded? How many gardeners would patronise the seed stores, if the seedsman should bake and destroy the vitality of all that he sold, as we have heard of being done in certain places in the old world? No man will expend his money without a promise of a return, and it is therefore the nurseryman's highest interest to assist as much as practicable in promoting the successful management of the trees he furnishes.

Late Sown Vegetables.

Some of the greatest delicacies for table use may be obtained from quite late sowings. We can speak most positively in regard to turneps. Both the round and the flat turnep may be sown at any time in July or August, and we have known it come to considerable maturity in a season in which there were no early frosts, when sown in the first week of September. Special pains should be taken to enrich the soil, for in this way we secure two objects—the more rapid growth of the plant, and a sweeter and more tender vegetable. We suppose it is generally well known that the more rapid the growth of this and several other vegetables, the more mild and tender they are to the taste. Cabbages, onions, radishes, spinach, cauliflower, are all much more delicate in flavor, and agreeable to the palate when grown freely and rapidly, than when their growth is stinted or slow. Cucumbers and celery may also be added to the above named, as being much milder when grown rapidly than when of slow growth. Some of these may be raised late in the season, as well as turneps, so as to supply the table with the delicacies of spring and summer until quite late in the fall and winter.

By the end of July and in the course of August, there will be vacant places in garden and field, which it will be good economy to sow with turneps. There will be, at all events, the pea and early potato ground; these and other such patches may be sown with round or even flat turnep, and thereby, we will be making provision both for our family and our stock. What we do not use for the table will be well relished by our cattle; and cows which have a tolerable supply, will not dry up so early as cows that have no green feed. OBSERVER.

High Culture.

During a recent visit to the garden of Dr. E. W. SYLVESTER of Lyons, N. Y., he showed us a strawberry bed measuring precisely 20 feet square, which bore two bushels and three pints of strawberries the present season, or at the rate of 223 bushels per acre. This product would not be extraordinary for some varieties of the strawberry; but for Hovey's Seedling, the sort here cultivated, which is usually only moderately productive, we regard it as a proof of skilful cultivation. We learned on inquiry that the soil, a light, coarse sandy loam, had been trenched two and a half feet deep, during which a very large portion of stable manure was worked in, probably at the rate of some two hundred loads or more per acre. Some of our best cultivators of the strawberry have regarded Hovey's Seedling as one of the sorts that would not bear a very rich soil, but this experiment seems to throw a doubt over such a conclusion.

Dr. S. had found a great advantage to garden vegetables generally, as well as to strawberries, in the application of liquid manure made from mold or swamp muck. He mixes a barrel of muck in a tub with four or five barrels of water, and about two pounds of caustic potash, or two bushels fresh ashes, if the potash cannot be had—daily stirring the liquid mixture for some days, when most of the muck will be dissolved or held by the water, and the whole will be ready for use. Its application to garden crops generally has produced very conspicuous effects, where alternate rows were selected for this purpose. Perhaps an equal quantity of pure water applied to the untreated rows would have afforded a fairer experiment, as this would have presented similar results from the watering only. Dr. S. thinks that this liquid application is about equal to guano water. But as it is more limited in its composition, it cannot be of so general application to all soils, and in some instances, and more especially when the soil is already largely furnished with vegetable mold, might prove of little benefit.

Dr. S. showed us a field of Mediterranean wheat, portions of which were treated with stable manure, swamp muck, and swamp muck mixed with ashes. A part was left without any application. The manured part had much the largest growth of straw, a part being badly "lodged"—the portion with muck and ashes, exhibited a fine, uniform, upright, thick growth; the muck alone was decidedly inferior, and the undressed part worst of all. No measurement having been made, the relative effects could not be known accurately, but we should estimate the product of the parts treated with yard manure and the muck and ashes, which were about equal and were applied at the rate of about 30 loads per acre, at nearly double that of the untreated land. A part of these different pieces was limed, without any visible effort - doubtless on account of a previous existence of a full supply of lime in the soil.

Curl in the Peach.

The curl in the leaf of the peach, which is generally supposed to have had a very unfavorable influence on the young crop, has given rise to much speculation as to its immediate cause, and cold weather, aphides, fungus or mildew, and diseased sap, have been variously assigned as reasons. The cold-weather theory will not always apply, as the disease sometimes appears after a continued succession of warm days, and the first opening of the young leaves shows the symptoms when they have never been exposed even to a cool night. Again, the disease has often made its appearance when no aphides could at any time be detected with the most powerful achromatic glass; and newly opening leaves, exposed only a few hours to the fresh air, and on which no insect had ever set foot, have shown incipient but unmistakable indications. The explanation by "diseased sap" is too general and indefinite—the fungus theory has more appearance of plausibility, but needs investigation and proof—and if correct, the fungus must be of *internal* growth, as the smooth and shining epidermis of the leaf is quite unbroken when the curl first appears in the cellular tissue.

But whatever may be the cause, the best remedy, so far as discovered, is vigorous growth. We have observed trees standing in the corner of a hog yard, where they were copiously supplied with manure, and as a consequence making a rapid growth, covered with deep green foliage, with scarcely a vestage of the curl; and a row of peach trees which had been very freely shortened in the past winter, by cutting of branches in some cases an inch in diameter, have sent out strong new shoots, almost wholly free from the disease, and the trees are well loaded with young fruit.

Manuring Orchards.

Wishing to manure an old orchard, and having as much under the plow as I can tend, what is the most advisable course for me to pursue? T. S. M. *Westmoreland, N. Y.*

Apply the manure late in the autumn, or in the winter, if it cannot be done sooner, and plow it under in spring and keep the soil mellow and clean by an occasional dressing with the harrow or two-horse cultivator. There is little use in trying to raise crops in orchards of large trees, which shade the young plants too much for profit to annual crops. Ashes or lime at the rate of 100 to 300 bushels per acre are mostly very beneficial to old orchards.

Amateur and Window Gardening.

Most plants grown for the window, particularly those gone out of bloom, would be the better out-doors entirely, while the scorching hot weather lasts. Select some sheltered place, where the rays of the mid-day sun do not fall on them if possible; plunge the pots to the rim in coal ashes or other light material, being careful whether plunged or not, to put something under the bottom of the pots to keep the worms from getting inside. By plunging the plants, they are not so likely to suffer by inattention to watering.

Pelargoniums, (geraniums,) should now be cut down to three or four eyes on each stem, keeping them rather dry for a while. When they have made shoots again about a quarter of an inch long, they may be taken out of the pots, all the mold shaken off, the roots slightly pruned and repotted into smaller pots—keeping them indoors, shaded from the sun, till they have recovered the check. This is one of the secrets to perfect success in geranium-growing. The cuttings may be put in as recommended below.

Any plant wished to flower in the fall or winter, such as *Pelargonium*, *Heliotrope*, *Cuphea salvea*, and the like, should be potted now for the last time, and the flower buds kept pinched out till the middle or end of August. Keep them liberally supplied with water, and when the pots are filled with roots, a little weak manure water will assist a sturdy growth, and by fall they will be prepared for vigorous flowering.

Mignonette should now be sown in pots for winter flowering. When up, thin out to three or four in a pot, and they will form nice little bushes; or if preferred a neat bush may be got from single plants, if a few small plants are taken up carefully from the borders, potted in good rich compost, kept under glass shaded and moist for a few days, and then, as the pots fill with roots, gradually shifted into larger, till fall, pinching out the flowers as they appear. By following this method we have had by Christmas and till spring, bushes some eighteen inches diameter, and hundreds of flower stems on at a time, making the atmosphere of a greenhouse as redolent as a walk in the garden on a summer evening, and that, too, when Nature's white sheet is spread over everything out of doors.

Every effort should be made, where there is a green-house, to get plants to flower in winter; for in a climate like this nothing is so refreshing as a walk in a well arranged green-house or conservatory in winter. *Fuchsia serratifolia* is a charming plant for this purpose, and should be encouraged in growth now as much as possible.

Now is the time, where there is a green-house of pits plants for storing them, to set about in earnest preparing for decorating the flower garden next year. Pits are a very useful structure for this purpose, and by having a flue, will cost but little and answer all purposes for bedding plants. The proper way is to go over the beds and borders, and ascertain something like the quantity likely to be wanted of each sort, and strike accordingly. This saves a great deal of anxiety at planting time, besides having the beds properly filled. Another point is to strike nothing but those possessing good qualities, as the same room and labor is taken to grow rubbish as good things.

All the *Pelargonium* tribe strike readily in open air, shaded from the sun, in sand mixed plentifully with the soil; in fact this holds good in striking cuttings—the sand materially assisting the formation of the calosity at the base of the cuttings, after which the formation of roots is a matter of certainty. When they have taken root, they may be taken up and potted singly in small pots, which is the better way, or if room is a consideration, several in a larger pot.

Most other plants strike better with the assistance of glass. A frame is just the thing, filled with good light mold and sand to within six inches of the top - place a slight layer of sharp sand on this, pressed down rather firmly, the cuttings dibbed, watered, and kept moist and shaded, and if properly done few will miss. A hand light answers equally well, and if neither of these are at hand, then use flower pots filled to three inches of the top, putting plenty of drainage at the bottom, and a piece of glass to cover the top of the pot. Some hundreds may with care, be struck in this simple way.

Bulbous plants may, as the tops die off, be taken up and dried in the shade. This is scarcely necessary for border plants, except when they become too thick, which will happen every third or fourth year. They may be planted again in the fall.

Many of the hardy herbaceous plants strike well from cuttings. Where the sorts are scarce, and offsets few, a quantity of these may be put in.

The beautiful tribe of *Phloxes* strike freely from the flower stalks. Too many of these cannot be had, particularly of the dwarf varieties—the one called *Van Houtii* being a splendid thing; no garden, however small, should be without it.

Seedling perennials should be pricked in beds a few inches asunder, or into the borders they are to occupy, three in a place, in a trianglar form—care be taken to plant the tall in the middle, and dwarf ones outside. This simple injunction is seldom sufficiently attended to, and shows great want of taste when the flowering commences, besides very pretty dwarf plants being often hid from sight by their more lengthy neighbors. E. S. *Albany, July* 16, 1853.

Sowing Garden Seeds in Autumn.

The practice of sowing the seeds of hardy vegetables for early spring use, at such a time of year, that they shall make considerable growth before winter, has been practiced with great success by some gardeners, particularly for lettuce, early cabbage, early onions, spinach, &c. Much of the success of some of these vegetables consists in getting a sufficiently good and vigorous growth before winter. But it often happens that the soil is suffering from the severe autumn drouths at the best time for sowing. J. TOWERS, a skillful English gardener, pursues the following method, which, if found useful in that humid climate, would doubtless be of much greater advantage under our parching suns. He first thoroughly soaks with a fine rose watering pot the entire space to be seeded—this is done at sun-set, and the surface covered with mats all night, and until late the next afternoon, when the watering and covering is again repeated, and so on for three successive days. By this time the soil is brought to a fine, friable, quite moist condition, when the drills are drawn, a watering given along each, the seed then sown and covered with the screened earth. Every good seed will grow without failure, and with no appearance of the unevenness so common with dry weather sowing. Superficial watering, as is commonly practiced at this season, is perfectly fertile, and soaking the seed merely will be of little use. A *very weak* solution of guano, or of super-phosphate of lime, may be used for moistening the drills.

American Grapes.

Most of our readers are aware, that N. LONGWORTH, of Cincinnati, ha been for many years much interested in collecting and testing all the American varieties of the grape which could be found. He has now about a hundred sorts thus collected. During the past autumn, he invited a committee to visit his collection, containing about thirty sorts in mature fruit. The results of the examination made are given by Dr. MOSHER, in a late number of the Western Horticultural Review, from which we select the following, which are notices of the most interesting or valuable sorts. The "Delaware County" will be recognized by our readers as the sort lately described by N. Longworth as one of uncommon promise, and of which we lately published some account.

Zane.—Said to have been found on an island in the Ohio river, below Wheeling; in color and form it resembles Catawba; a very delicate, juicy grape, with less of the Foxy taste than the Catawba.

Thatcher's.—A native of Ohio; a very fine table grape; resembles the Herbemont in the berries, but the bunches are smaller.

Herbemont's (Madeira).—Vigorous, healthy vine; bunches large, shouldered; berries small, purple, compact; skin thin; no pulp, but juicy and vinous; an excellent table grape, and yields a wine resembling Spanish Manzanella.

Winne.—Considered a good pleasant grape for table.

Marion.—Resembles Isabella, probably a seedling from it; berries and bunches larger; it is superior as a table grape, an abundant bearer, and ripens uniformly.

Hotchkiss.—One of the best of the Fox grapes.

Clermont.—Resembles Catawba in color; a delicious table grape.

Davis'.—From Kentucky; resembles Catawba; less aroma, more acid; large and vigorous grower.

Lee's.—Resembles Isabella; very good.

Diana.—From Massachusetts; seedling from Catawba; smaller, paler, less pulp, thicker skin; juice sweet and pleasant; judged not equal to Catawba, as far as tested here.

Hyde's Eliza.—Resembles Isabella; good.

Delaware County.—A small grape; color like Catawba; bunches small; skin thin, delicate, transparent; juice brisk, and vinous; and judged one of the very best table grapes. Vine resembles a foreign grape. It has been pronounced by several German vine men to be identical with their *Traminer* (?) one of their best wine grapes. The vine is said to have been cultivated in New-Jersey for sixty years, and twelve years in Delaware county, in this State, and is as hardy as the Catawba. Was sent from Europe to a foreigner in New-Jersey, by a brother of the person to whom sent.

Clarkson.—A small, black grape; excellent for the table.

Missouri.—Small black grape; bunches loose; skin thin; little pulp; good for the table. Mr. Longworth says: "A fine wine grape where brandy is added, as is done with the Maderia wines, which it resembles."

The Grazier.

Importation of Stock.

The (London) *Mark Lane Express*, of 13th of June, congratulates the farmers of England upon the fact, that "whatever injury the importation of foreign stock may have inflicted on the breeders of this country (England,) it appears likely to be more than compensated by our export trade in the same description of produce." In proof of this, it alludes to recent sales and shipments of stock to this country. At a sale held on the 1st of June, NOEL J. BECAR of N. Y., bought a yearling Short-horn heifer, "Beauty," bred by H. Combe of Cobham Park, paying for it $750, the highest price realized from any animal at the sale. This gentleman, it says, has "recently purchased several other very superior specimens from some of our most celebrated herds, on behalf of himself and Col. L. G. MORRIS, President of the New-York State Ag. Society. At the same sale, a Short-horn bull-calf, "Liberator," was purchased for Mr. KELLY, near Philadelphia, for $400.

In the same paper of June 6, we find the following notice of the shipment of a cargo of stock, all of which is destined for Kentucky:

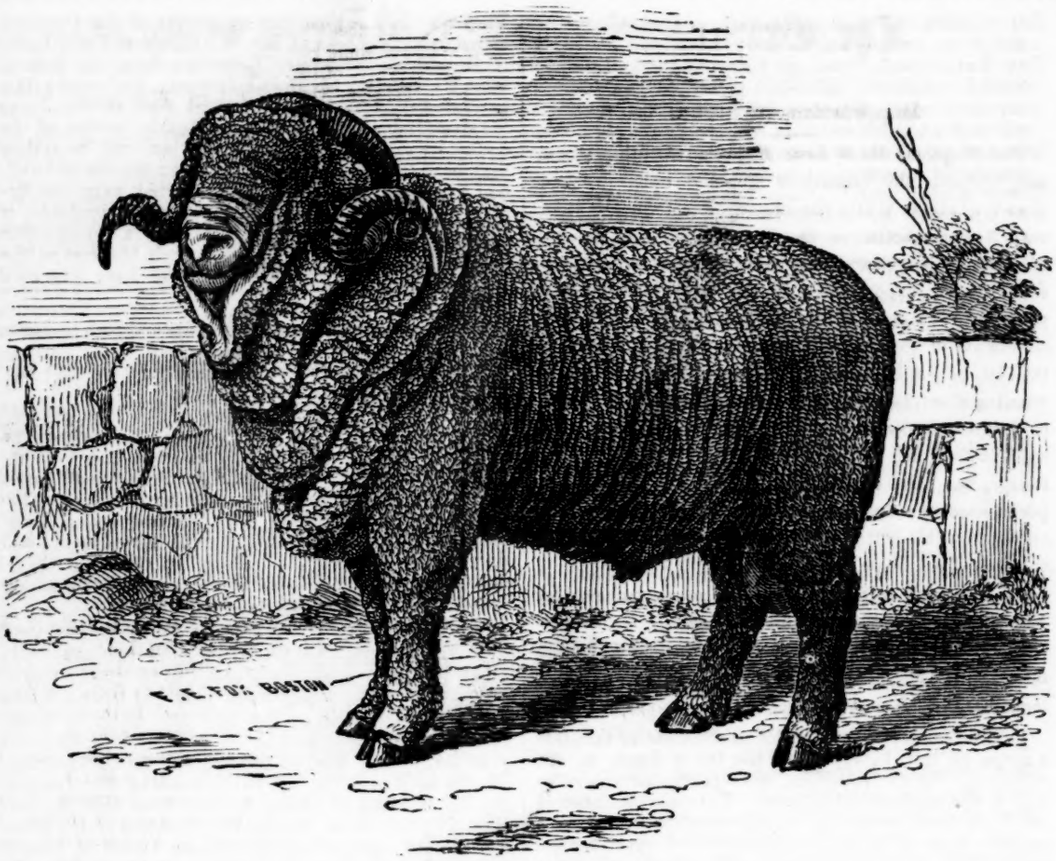
Seldom has it fallen to our lot to chronicle as valuable a cargo as left Liverpool on the 4th of June, in the "Crown," for Philadelphia; more particularly as relating to the agricultural interest. This may be inferred when we mention that in the ship mentioned were sent out fifty head of the choicest specimens of short-horned cattle which could be bought in old England; several of them being purchased at prices which may appear incredible; as probably no ship was ever freighted with anything like so valuable a cargo of this description. Twenty four head of cattle and a quantity of sheep, the property of R. A. Alexander, Esq., Airdri House, Scotland, were sent in her, destined for his estate in Woodford County, Kentucky, U. S. Some estimate may be formed of the high spirit and enterprize of this gentleman, when we mention that for two animals alone, a two-years old heifer and a yearling bull, named the "Duchess of Athol," and 2nd "Duke of Athol," bred in this county by Charles Townley, M. P., near Burnley, he gave the large price of £525, ($2,625.) To Mr. Strafford, of London, who had the superintendence of Mr. Alexander's cattle, we are indebted for several interesting particulars relating to the stock, and who informed us that these two animals were the produce of one cow—"Duchess 54th"—bought at the sale of the celebrated herd of Short-horns of the late Thomas Bates, Esq., at Kirklevington, and bred since that gentleman's decease. We also noticed in the cargo, some very fine young bulls, bought from the justly famed herd of F. H. Fawkes, Esq., Farnley Hall, as well as some very choice cows and heifers from the well known herds of Messrs. Bell, Bolden, Cattley, Combe, Downs, Fuller, Lowndes, Tanqueray, Wiley, &c. The Sheep, principally of the Cotswold or New Oxford breed, were from the crack flocks of Mr. W. Garne, of Aldsworth, and Mr. John Gillett, of Minster Lovell. The other portion of the stock consisted of 10 short-horned bulls and 15 cows and heifers of the same breed, selected at very high prices for a large importing company, also from Kentucky, the agents for which, Messrs. Dudley, Garrard, and Van Metre, have succeeded, after much time and trouble, in the purchase of a splendid lot of cattle and sheep from the best herds and flocks in the kingdom. In evidence of this we may cite those of the Earl Ducie, Lords Burligton and Feversham, Messrs. Ambler, Beasley, Bell, Booth, Emmerson, Fawkes, Hall, Hopper, Maynard, Smith, Tanqueray, and Townley. They also had several fine specimens of the Cotswold sheep from the flocks of Mr. W. Garne and Mr. Lane, of Broadfield; some pure Leicesters from the flock of Mr. W. Sanday, of Holmepierpont; and some prime Southdowns, from the unrivalled flock or Mr. Jonas Webb of Babraham; besides a valuable stallion of the Yorkshire or coach horse breed; we can only hope they may have the good fortune to get them out safe and well, and reap the reward which such spirited exertions deserve. We believe for the freight alone, exclusive of the food and fittings requisite for such a voyage, that about £1,200 ($6,000) was paid, while the cost of the stock, with expenses incurred, must have exceeded £5,000 ($25,000.)

The following is from the same paper of 13th of June:

We have again to report a further exportation of valuable cattle from Liverpool, during the past week. In the ship "Mary Carson," for Philadelphia, was sent out by Mr. Strafford, of London, the splendid young short-horned bull "Harry Lorrequer," bought at the sale of Mr. F. Fawkes, Farnley Hall, for 130 gs.; also two other valuable young bulls, "Liberator" and "Squire Gwynne (2nd)," bred by Mr. J. S. Tanqueray, of Hendon, with several heifers from his herd; as well as others from the herd of the Honorable H. N. Hill, Berrington, and a number of Cotswold sheep. Mr. Bell, of Mosbro' Hall, likewise sent in this ship eight short-horned heifers from his own herd, a young Devon bull bred by Mr. Davey, of South Molton, with some Devon heifers bred by the Earl of Leicester. Two other valuable cargoes are about to be despatched.—"The Star of the South" will take out the far famed bull "Baleo," bred by the late Mr. Bates, of Kirklevington, and purchased at his sale in 1850, when one year old, by the Earl of Burlington, for 155 guineas. He has been used the last two seasons by Mr. Tanqueray, at Hendon, of whom he has been recently purchased by Col. L. G. Morris, the President of the New-York State Agricultural Society, on behalf of himself and Mr. Becar, of New-York. These gentlemen have also purchased some highly valuable cows and heifers from Mr. Tanqueray, as well as of the Hon. H. N. Hill and Mr. Harvey Combe; they have further selected some splendid South Down sheep from Mr. Jonas Webb, with a quantity of Berkshire, Suffolk and Yorkshire pigs. The same ship takes out two very choice Devon heifers from Mr. George Turner's herd. Again, Messrs. Browning, Farrar, and Phellis, agents for the Madison County importing Company, Ohio, U. S., are sending in the "Monsoon," 23 head of short-horned bulls, cows, and heifers from the herds of Messrs. Booth, Fawkes, Hall, Knowles, Lawson, Raine, Thornton, Tanqueray, &c. Amongst the bulls is the first prize yearling at Sheffield, bred by Mr. Hall, of Kiveton Park. They will have, too, a number of improved Leicester rams and ewes from the flocks of Messrs. Brooke, Chapman, Hall, and Wood, as well as 13 pigs from the best breeders. Some estimate of the importance of these exports, destined for several parts of the United States, may be formed, when we mention that, from the best information we could procure, the cost of these, with the other stock mentioned in our last week's report, cannot be far short of £12,000, exclusive of the expense of shipping—in itself a heavy item, approaching, in fact, to £2,000.

It is understood that the Short-horns above alluded to, shipped by Mr. Bell, are for Mr. LORILLARD SPENCER of Westchester, Dr. HERMAN WENDELL of this city, and Mr. S. P. CHAPMAN of Madison county—the Devons for GEORGE VAIL of Troy, and the Messrs. WAINWRIGHT of Rhinebeck.

CHURNING.—Butter should always be churned in a room or apartment, the temperature of which is between thirty and sixty degrees. At sixty degrees, butter is obtained in the greatest quantity, and at about fifty-two degrees of the best quality.



Spanish Merino Buck.

THE PROPERTY OF MR. GEORGE CAMPBELL, WEST-WESTMINSTER, VERMONT.

Points of Excellence in Cattle.

Adopted by the N. Y. S. Ag. Society, for the guidance of the Judges at their Annual Fairs.

HEREFORDS.

PURITY OF BLOOD, as traced back to the satisfaction of committees, to imported blood, *on both sides*, from some known English breeder, or as found in Eyton's Hereford Herd Book.

THE HEAD—moderately small, with a good width of forehead, tapering to the muzzle; the cheek-bone rather deep, but clean in the jaw, ... 3

THE NOSE, light in its color, and the whole head free from fleshiness, ... 2

THE EYE full, mild, and cheerful in its expression, 2

THE EAR of medium size, ... 1

THE HORNS—light and tapering, long and spreading, with an outward and upward turn, giving a gay and lofty expression to the whole head, ... 2

THE NECK—of a medium length; full in its junction with the shoulders, spreading well over the shoulder points and tapering finely to the head, 2

THE CHEST—broad, round, and deep; its floor running well back of the elbows, which with a springing fore-rib, gives great interior capacity to this all important portion of the body, ... 14

THE BRISKET—*when in flesh*, largely developed, descending low between the legs, and deep, by covering the anterior portion of the sternum, or breast bone, but never interfering with the action of the animal when in working condition, ... 4

THE SHOULDER—lying snugly and closely in towards the top and spreading towards the points; the blade sloping somewhat back, and running pretty well up into the withers, which by rising a very trifle above the level line of the back, gives to the ox a very upstanding and beautiful fore-end. The whole shoulder well clothed with muscle, .. 3

THE CROPS—filling all up evenly behind the shoulders, and blending them smoothly with the muscles of the back, ... 3

THE BACK, loin, and hips, should be broad, wide, and level, ... 8

THE RUMPS should lie nearly, or quite level with the back, and their covering should be abundant, mellow, loose, and freely moving under the hand, thus showing great aptitude to fatten, ... 4

THE PELVIS—roomy; indicated by wide hips, as already mentioned, and the space between the rumps, which should stand well apart, giving a general breadth to the posterior portion of the animal, ... 3

THE TWIST, broad and full, extending well down on each side of the thigh, with corresponding width—a broad twist as a good indication of a butcher's animal, ... 5

THE HIND QUARTERS—large and thoroughly developed in its upper and more valuable portions, as beef. The thigh gradually tapering to the hock, but muscular, ... 6

THE CARCASS—round throughout; full and capacious, with the under line of the belly level, or nearly so, ... 3

THE FLANK full and wide, ... 3

THE LEGS—straight, upright; firmly placed to support the superincumbent weight; a strong back sinew, but by no means a large, coarse cannon bone, ... 3

THE PLATES of the belly strong, and thus preserving nearly a straight under line, ... 3

THE TAIL—large and full at its point of attachment, but fine in its chord, ... 2

THE CARRIAGE—prompt, resolute and cheerful; and in the ox, gay and lively,..... 3

THE HAIR—thick, close and furry, and if accompanied with a long growth, and a disposition to curl moderately, is more in estimation, but that which has a harsh and wiry feel is objectionable, 3

THE UDDER should be such as will afford the best promise of capacity and product, ... 2

COLOR—Reds or rich browns, oftentimes very dark, with a white or "brockled" face, are now the colors, and marking of the Herefords, though grey Herefords or cream-colored, are not uncommon, 1

QUALITY—On this the thriftiness, the feeding properties, and the value of the animal depends; and upon the touch of this quality rests, in a good measure, the grazier's and the butcher's judgment. If the "touch" be good, some deficiency of form may be excused; but if it be hard and stiff, nothing can compensate for so unpromising a feature. In raising the skin from the body, between the thumb and finger, it should have a soft flexible and substantial feel, and when beneath the out-spread hand, it should move easily with it, and under it as though resting on a soft, elastic, cellular substance; which, however, becomes firmer as the animal "ripens." A thin papery skin is objectionable, more especially in a cold climate,..... 15

100

POINTS OF THE HEREFORD BULL.

As regards the male animal, it is only necessary to remark, that the points desirable in the female are generally so in the male, but must, of course, be attended by that masculine character which is inseparable from a strong and vigorous constitution. Even a certain degree of coarseness is admissible, but then it must be so exclusively of a masculine description, as never to be discovered in the females of his get.

In contra-distinction to the cow, the head of the bull, may be shorter, the frontal-bone broader, and the occipital flat and stronger, that it may receive and sustain the horn—and this latter may be excused if a little heavy at the base, so its upward form, its quality and color be right. Neither is the looseness of the skin, attached to, and depending from the under jaw, to be deemed other than a feature of the sex, *provided* it is not extended beyond the bone, but leaves the gullet and throat clean and free from dewlap.

The upper portion of the neck should be full and *muscular*, for it is an indication of strength, power, and constitution. The spine should be strong, the bones of the loin long and broad, and the whole muscular system wide and thoroughly developed over the entire frame.

The Staggers in Swine.

In answer to the inquiry of T. W. C. of Spring Vale, N. C., we copy the following, on the treatment of this disease, from the *American Swine Breeder:*—

This is a disease to which swine are sometimes subject. Hogs affected suddenly with this disorder, turn around rapidly, and if not assisted will soon die. On opening the mouth a bare knob, in the roof of it will be discovered (this, however, is not always visible), which, if found, should be cut and allowed to bleed. Some writers recommend the powder of loam and salt, rubbed into the wound thus made, and the administration of a little urine to the hog.

A writer in the New-England Farmer, remarks that he "lost two swine from ignorance as to the cure of this disease; but by cutting off the tails and ears of the animals, as the easiest way of bleeding them, giving them strong doses of castor oil, and turning them out of the sty into the pasture," he succeeded in saving them. Sometimes they relapsed, but were restored again by being turned out. But they did not soon come to their appetite, and the disease materially, and for a long time retarded their growth.

Right Education of Horses.

That horses may be educated will not appear strange to those who have closely observed the intelligence often manifested by that noble animal. The present remarks are designed to give some information in relation to the rearing and treatment of young horses, not so much, however, with reference to their food and drink, as to their quietness and docility.

That there is a difference in the temper and disposition of different horses, is not denied; but at the same time it is averred that where a horse is so vicious or unmanageable as to render him unsafe in the harness, it is chargeable *in almost every instance* to the treatment he has formerly received.

The training of colts should commence when they are about three months old, so as to have them become familiar with the family before they are taken from the dam. Some colts are inclined to use their heels rather too freely; in such cases great care is necessary. They should be approached carefully, and caressed and curried, and they will soon submit to have their feet taken up and handled without resistance; and this will aid in quieting them while being shod, as the horse seldom forgets what he has once learned.

A common method of weaning colts is to take them to some back lot, and place a heavy yoke or "poke" on the neck, which they are compelled to wear for several weeks until their spirits are completely broken, and they become more or less "ewe-necked," from which defect they rarely wholly recover. Another method, but little less objectionable, is to shut them in the stable; but this does not learn them to *respect a fence* in the least. Now the better way and the one that the writer has practiced with uniform success, is the following:—Prepare a yard, (if it contains an acre or more, so much the better,) having a strong high fence, so high that the colt cannot possibly leap over it—from six to seven feet will be sufficient—and let the materials of which the fence is composed be the same as those enclosing the field where the colt is in future to be kept—either wall, boards, or rails, as the case may be—and place him there without attaching any artificial appendage whatever, and let him understand *that it is the fence alone that prevents his escape.* He should be generously fed, and also have a shed at which he can retire at pleasure. After he has been subdued in this way, he may be turned into any field *having a fence of the same kind*, and of ordinary height, and he will not attempt to break over. Even the most spirited horse brought up in this way cannot be induced to leap a fence four and a half feet high.

The practical benefits of the above plan are great. In passing through the country one is pained to see so many noble looking horses shackled and hampered in every conceivable way that ingenuity can invent, much to their detriment in putting on flesh, to say nothing of the perplexity and trouble to the owner in adjusting the trappings every time the beast is turned out or taken up, and all for the want of a little care during the first year,—for it is eminently true in this case that an ounce of prevention is worth a pound of cure.

There are many horses not "true" or reliable, in the harness, having the habit to stop or balk, especially at the foot of a hill; this is caused by having been at some time overloaded, and perhaps unmercifully beaten.—Neighbor A. has a beautiful span of bays three years old, that he has been breaking in the past winter; he wishes to haul some rails from the farther side of the farm, and as the colts have become tolerably "handy," he puts on nearly a full load which they manage very well until they come to a "hard spot," and there they stop. The driver looks at the load, then looks at the horses: they are nearly as large as the old team,—he *knows* they *can* draw it, and is determined they *shall*. So he commences beating and pounding the poor animals until he is nearly worried out, when he throws off his load and goes home with loss of both time and tem-

his load and goes home with loss of both time and temper, and the horses damaged to the amount of twenty-five dollars each.

Now it is quite probable that the horses had *strength* enough to draw the load in question, but they had not sufficient practice; they did not know how to apply their strength, and did not work in concert. They should have been made to draw only light loads for a long time, and then by increasing the weight gradually, as their strength and experience increases, they can be made to do all the work they are capable of doing, and will always work kindly, and may be depended on under all circumstances.—*The Wool Grower and Stock Reg.*

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Domestic Economy.

Uses of the Peach.

We make the following extract from an article which appeared in the *New-York Times,* over the signature of AGRICOLA:—

The peach is one of those fruits in particular recommended to be eaten in the morning, in preference to any other time. Brookes says they agree well with persons of hot constitutions and costive habits, especially if eaten in a morning fasting; and Gerard says that the leaves boiled in milk will destroy the worms in children. From the wood of the peach tree the color called rose-pink is obtained. The leaves, when bruised and distilled in water, constitute an excellent article for flavoring certain descriptions of cookery. When steeped in brandy, they communicate to it the flavor of Noyeau. Sweetening with fine sugar, mixed with a small quantity of milk, and afterwa ds decanted in the usual manner.

Dried Peaches.—To dry peaches in their whole state, pare them, boil for a few minutes in a syrup composed of one pound of sugar dissolved in three quarts of water, and, after being drained by laying them singly on boards, place them in the oven, after the bread is taken out, and pack them carefully in boxes. Another method pursued in the drying of peaches is to have a small house, provided with a stove, and drawers in the sides of the house lathed at their bottoms, with void intervals. The ripe peaches are then cut in two, but not peeled, and placed in a single layer on the laths, with their skins downward, to save the juice; on shoving in the drawer, they are soon dried by the hot air produced by the stove: in this way great quantities may be successively prepared, in a single season, with but a little expense in the preparation of the buildings and in fuel. There is yet another method which it may be well to refer to in this place. Take the open stone sort, when perfectly matured, but not too soft, and, after rubbing off all the down with a coarse wo cloth, divide them into haves, fill the cavities with sugar, and place them skin down, so that they may be removed without handling the fruit. By this method the pores are so closed on one side by the skin, which should not be removed, and sugar on the other, that the flavor of the fruit is retained in a much greater degree than in the common way.

Peach Preserve.—Take enough clarified sugar to cover the fruit, boil it till the syrup blubbers on the opposite side of the skimmer, then put in the fruit, let it boil lively two minutes, remove the same, let it stand from the fire till next day, then take out the fruit, boil the syrup again, and as soon as the fruit boils take them from the fire, and when cold put into jars, and keep free from heat or moisture.

Peach Jam.—Gather the fruit when ripe, peel and stone them, put them into the pan, and mash them over the fire till hot; rub them through a sieve, and to each pound of pulp add a pound of white sugar and half ant ounce of bitter almonds, blanched and pounded; let i boil ten or fifteen minutes, stir and skim it well.

Peach Jelly.—Take free stones, not too ripe, wipe them, and cut into quarters; crack the stones and break the kernels small; put the peaches and kernels into a covered jar, set them in boiling water, and let them do till soft; strain them through a jelly bag till the juice is squeezed out; allow a pint of white sugar to a pint of juice; put the sugar and juice into a preserving kettle, and boil them twenty minutes, skimming very carefully; put the jelly, warm, into glasses or jars, and, when cold, tie up with brandied papers.

Peach Wine.—Take nearly ripe fruit, stone it, and bruise the pulp in a mortar; put eight pounds of the pulp to one quart of water, and let it stand twenty-four hours, then squeeze out the juice, and to every gallon of it add two pounds of white sugar; then put it into a cask, and when it has fermented and become perfectly clear, bottle it up, and use at pleasure.

Peaches in Brandy.—Wipe, weigh, and carefully select the fruit, and have ready a quarter of the weight of powdered white sugar; put the fruit into a vessel that shuts closely, throw the sugar over it, and then cover the fruit with brandy; between the top and cover of the pot, put a piece of double cap paper; set the pot into a saucepan of water till the brandy is quite hot, but not boiling; put the fruit into a jar, and pour the brandy upon it, and, when cold, put a bladder over, and tie it down tightly.

Pickled Peaches.—Take a gallon of good vinegar, add to it four pounds of sugar, boil it for a few minutes, and remove any scum that may rise; then take clingstone peaches that are fully ripe, rub them with a flannel cloth, to get off the down upon them, and stick three or four cloves in each; put them into a glass or earthen vessel, and pour the liquor upon them boiling hot; cover them up, and let them stand in a cool place for a week or ten days, then pour off the liquor, and boil it as before, after which return it boiling to the peaches, which should be carefully covered up and stored away for future use.

DRYING TOMATOES.—The Ohio Cultivator says, (early last summer,) "We ate some very fine tomatoes not long since, dried in the following manner. Fruit fully ripe was scalded, strained through a sieve, slowly cooked half an hour, spread on clean plates, and dried within an oven, the whole process requiring about two days before the fruit was ready to pack away."

TO STOP BEES FROM FIGHTING, breaking the comb of the robbers is said to be sufficient, by giving them plenty of business in taking care of their wasting honey at home. It is said to have succeeded completely.

Notes for the Month.

TRIAL OF MOWERS AND REAPERS.—The trial of Mowers and Reapers, under the charge of a committee appointed by the Rensselaer County Ag. Society, took place on the farm of Mr. Kimball, in Greenbush, Wednesday, July 13. A large number of farmers and others were in attendance, and the interest manifested in the trial, amounted almost to enthusiasm. Not less than four hundred persons were present, and many were from adjacent counties. A stronger proof of the readiness of our farmers to avail themselves of every improvement, could not be desired. The most incredulous of the availability of these machines on small farms and uneven meadows, went away convinced that mowers can cut the grass closely, evenly and rapidly, and the general conclusion was, "I must have a mower and a reaper, just as soon as I can ascertain which is the better one."

The Mowing machines entered for competition were Ketchum's, H. L. Emery's and Manny's, and each cut an acre of grass well. Ketchum's machine seemed to be the favorite. It was operated by a practiced hand, worked without interruption, and cut the grass to the satisfaction of every one. The facility with which it can be turned about, and its compactness, make it preferable to the more complicated machines as a mower. A strong desire to have a mower and reaper combined in the same machine prevails among farmers, and Emery's and Manny's attracted close attention on this account. Both of them did their work satisfactorily. Manny's has been tested before; Emery's was entered for an experimental trial, he being still engaged in improving it. Waving some faulty working incident to a new machine, it operated finely, adapted itself to uneven surfaces in a superior manner, and cut its way through lodged and trampled grass without clogging. The decision of the committee has not yet been made public.

The only Reaping Machines entered for premium were Seymour & Morgan's and Manny's. The rapidity and regularity with which these machines cut and laid the grain, excited surprise and admiration. It was the general opinion that Seymour & Morgan's machine did its work the best; but of this the committee will in due time decide, and let us know the specific excellences of each, and their relative value.

Meantime, the farmers, who have seen the trial, will complain all the harvest season, that the scythes are uncommonly heavy and dull, their backs unusually weak, and dream at night of mowing machines, and seeing an acre of grass evenly fall in thirty or forty minutes. It will be severe work now to swing the cradle, and every farmer with twenty acres of grain has determined to buy a machine at an early day.

REAPERS.—The *American Farmer* states, that at the trial of Reapers on the 21st and 22d of June, under the direction of the Virginia State Ag. Society, the judges were divided in their opinions as to the merits of the three machines on the ground, two giving the award to Hussey's, two to Burrall's (which took the premium at the N. York trial last year;) and one to M'Cormick's.

The *New-York Agricultor* says—A trial of Reaping and Mowing Machines was had at Mount Holly, N. J., on the 2d instant, under the auspices of a committee of the Burlington County Agricultural Society. The general result was decidedly favorable to the employment of machinery for such purposes. Only McCormick's and Hussey's machines were entered for the reaping; McCormick's, Hussey's, Ketchum's and Manny's, for the mowing. The following premiums were awarded:

For the best machine for Mowing and Reaping combined, the premium of $15 to McCormick's machine.

Second best "Mower and Reaper," the premium of $10 to Hussey's Machine.

For the best "Mower," the premium of $10 to Ketchum's machine.

For the best "Reaper," the premium of $10 to Manny's Machine.

TOWN AG. SOCIETIES.—The town of Galen, Wayne county, has an agricultural society, which, from its efficiency, is doing much to promote the interests of its farmers. They held a Plowing Match on the 4th inst., and are to hold a Town Fair on the 17th Sept. We should be glad to know how many Town Ag. Societies are in existence in this State. So far as we know, the number does not equal one to a county; but we see no good reason why one-half the towns in the State, should not organise such associations. Their influence would reach, much more effectually than county societies can do, the mass of farmers, and the results could not fail to be of the most gratifying character.

QUERY—Ought not the law for the "Encouragement of Agriculture," to be so amended as to make appropriations to Town as well as County Societies?"

VALUE OF RAILROADS.—The Prairie Farmer says that the Eastern railroads which enter Chicago, have added ten to twenty-five per cent to every "useable animal with four legs," and every other saleable substace that animals produce. They have also given a cash value to many other things, which, though they might be used to a local extent, could not be sold. If animals have become of more value, of course the grass and grain that they eat have increased in price, as well as the land they grow on. All parties reap the benefit. The company prospers by the carriage of men, produce and merchandize; the farmer by the enhanced value of his produce; the mechanic by the increased demand and better pay for his work; the merchant and professional man, by the increase of facilities, conveniences, and the general growth and remuneration of business.

OREGON.—We make the following extract from a letter from a subscriber, dated Oregon city, April 28, 1853:—"It may be superfluous to write about the *crops* in this far off region, or of the *climate*. You no doubt read many statements—mostly, I think, exaggerated. The rot among potatoes has not reached here. The plum, as far as I have seen, has escaped the ravages of the curculio. The bitter rot does not affect the apple. On the contrary, this seems to be of superior quality; having a very smooth waxen surface, but thick rind. This spring is one month earlier, or nearly so, than last. It is now about time to plant corn; but very little of this crop is grown. The ground must be highly manured, or else the very choicest spots selected, or very little can be expected to ripen. Wheat looks well where not disturbed by mice, but in the prairie country, some crops are entirely destroyed by this troublesome animal. Where the crop stands, about an average yield, in this country, may be set down at 15 bushels. The grain is always remarkably well filled, but owing to the thickness of the bran, weighs only 58 lbs. to the bushel. In speaking of fruits, I might have added that there is promise of an abundant crop, excepting that in some parts of the flat prairie country the peach crop has suffered considerably by the frost. At some future time, if desired, I will give you an account of the crops as they ripen, and whether the grape will ripen in the open air in this latitude. We have many varieties of the apple and pear; also of other fruits. Many of each

will ripen this summer, and it may be interesting to you to know the average size, as well as quality of each."

We shall be glad to hear from the writer as he promises, and also from any one of our subscribers in Oregon and California, as to the prospects of agriculture and horticulture in those far off-lands.

REMARKABLE PRODUCT OF BUTTER.—On the 164th page of this paper, we gave an account of butter made from the milk of a three year old heifer, called "Cherry," owned by Miss MARY BRICE, of New-Scotland, in this county, for the 100 days, succeeding the 11th of Nov., 1852. We are now furnished with a statement for the following hundred days, from which it appears that the heifer Cherry was four years old on the 14th of June, 1853—that she had her second calf Nov. 4, 1852, and that, in the two hundred days, from Nov. 11th to May 29, 1853, there was made from her milk 194 lbs. 11 oz. butter—a very large product for so young an animal, including as the period does the entire winter months, and without other extra feed than four quarts ship-stuff twice a day.

PURCHASING STOCK IN ENGLAND.—Some of our people thing it an easy matter to purchase fine stock in England; but the experience of those who have visited that country for this purpose, proves that it is about as difficult to procure fine animals there as here. One of the agents sent out by a company in Kentucky to purchase stock, details the difficulties he met with, in the *Kentucky Cultivator*. He says—"You can form no idea of the difficulties that surround us in getting cattle to suit; to find them of quality that we want, and of age and condition; and then when we do they can't be bought for money at all, which is generally the case. Some of these men whose income is $300,000 to $500,000, who keep Short horns as a matter of pride and fancy, if they have a fine animal that is admired very much, and pleases their own fancy, and you were to offer to buy such an animal of them, and would offer to weigh it in a scale, and agree to give the "weight in silver dollars," would not let you have it."

AYRSHIRE CATTLE FOR CANADA.—A committee from an agricultural association at Brockville, C. W., consisting of Messrs. Chas. Jones, J. W. Hough and Wm. Beattie, purchased, the past week, from the beautiful herd of E. P. PRENTICE, Esq. of Mount Hope, near this city, four fine animals, consisting of a two-year old bull, "Dundee 3d"—a yearling bull, "Highlander 2d," and two in-calf heifers. They were all fine specimens of Ayrshires, and cannot fail to give satisfaction to the society for whose use they were bought.

The Government of New-Brunswick has appropriated $800 to each County Ag. Society in the Province, for the purpose of importing improved breeding horses, on condition that tche societies each raise $200 for a similar purpose. It is proposed to send out an Agent to attend the ensuing Fairs of England and Scotland, that he may have the best opportunities for obtaining information and making the purchase of the animals desired.

HEREFORDS IN KENTUCKY.—The last *Kentucky Cultivator*, contains the pedigrees of two bulls and two cows, Herefords, purchased of WM. H. SOTHAM of Pittsfordinia, Livingston co., N. Y., by JOHN J. TOWLES of Henderson, Kentucky. We shall be glad to hear how these cattle succeed on the rich pastures of Kentucky, and doubt not Mr. TOWLES will give them a fair chance to compete with the Short horns.

INCREASE OF AGRICULTURAL MACHINERY.—It is said that the manufacturers of steam engines for farm purposes in England, have increased eight fold in three years, and that one house that furnished only fifteen five years ago, three years afterwards made about three hundred. Thrashing, and other machines, are also rapidly increasing in manufacture, and clod crushers, reaping machines, and some of the newer articles much more rapidly.

ANNUAL ADDRESSES.—The Address at the New-York State Fair at Saratoga, is to be delivered by Hon. W. C. RIVES of Virginia—that at the Indiana State Fair, by HORACE GREELEY of New-York—and that at the American Institute, by Hon. WM. H. SEWARD of Auburn.

NATIVE FLOWERING TREES.—Mr. DILLE of Newark, O., a well known amateur horticulturist, states in the *Ohio Cultivator*, that he has recently discovered two new flowering trees, which he thinks of sufficient interest to florists, to communicate to the public—the first, a deep pink flowering dogwood, *Cornus Florida*, which he found in the woods near Lancaster; and a bright red flowering Buckeye, found in Hocking county.

THE AMERICAN FARMER, Baltimore, Md., begins a new volume with the July No. It is published monthly by SAM L SANDS, at $1.00, and is one of our very best agricultural journals.

THE WOOL GROWER AND STOCK REGISTER, published at Rochester, by D. D. T. MOORE, monthly, at 50 cents, and edited by T. C. PETERS, Esq. and the publisher, is a valuable work, and no wool-grower should be without it. Now is the time to subscribe, as a new volume commences this month.

☞ Col. CARROLL of Dorreghan Manor, Md., has just imported from France, a stallion and two mares of the celebrated Persheron breed, and a Norman mare. The editor of the *American Farmer* thinks they will be found to be unsurpassed by any importation into this country. Such men are public benefactors.

MORGAN STOCK.—According to the Boston Cultivator there has been sold from the town of Bridport, Vt., since 1844, 38 Black Hawk colts, part geldings and fillies, for the aggregate sum of $22,737, or an average of $590 each. There are many in the town unsold. This shows the value of Morgan stock at home.

POULTRY SHOW.—Mr. M. VAN DEUSEN of Phelps, Ontario co., proposes to be one of five or more, to pay $20 each, to make up a fund to be offered as a premium to any one in this State, who shall exhibit the best five pairs of Cochin China, Chittagong, Shanghai, Brahma or Malay, and Dorking Chickens, on the last day of the New-York State Fair at Saratoga. He also proposes to be one of five or more, from any part of the Union, to pay $50 each, for a fund to be awarded at an exhibition to be held in New-York, the week after the State Fair, for the best ten pairs of chickens.

HEAVY CALVES.—It is with no small degree of gratification, that we comply with the request of Mr. AARON WILSON, of Ovid, N. Y., to make known through your paper, the fact of his rearing and owning two remarkable calves, crosses of the Devon and Durham stock.

The first is a steer, two years of age, whose weight is 1400 lbs., and which measures in length 13 feet, 5 in. from the tip of the nose to the end of the tail, the body measuring 7 feet in circumference. This steer never ran with the cow, but was reared "by hand," in the usual method. The other is a young calf, three weeks old, whose weight, before being one day in *cattle-dom*, was one hundred and twenty-two pounds.—Both were bred from the same cow, and we dare say, are "hard to beat." D. H.

FOOD FOR SHEEP.—A late writer of great intelligence on this subject, says, "No farmer can feed either cattle or sheep profitably, without either ruta bagas, mangel wurtzel, carrots or parsnips. The experiments made in England and Scotland, in the last two years, have demonstrated this beyond all doubt."

WHEAT CROP IN VIRGINIA.—A letter from a correspondent in Chesterfield, Virginia, dated 2d July, says—"Our wheat harvest is just closed, with probably the best crop ever raised in Eastern Virginia. Owing to a severe drouth, the oat crop is light."

NEW-YORK AGRICULTURAL COLLEGE.—The committee of the trustees, Messrs. KING, KELLY and JOHNSON, who were appointed in relation to the purchase of the farm for the Institution, met at the Oaklands farm, on Saturday, June 4th, and after examining the farm of Mr. DELAFIELD, and the title to the same, which was found in all respects saisfactory, reported to the Board of Trustees in favor of purchasing the same at $26,000. The farm contains 350 acres, with varieties of soil well adapted to the objects of the Institution. The report was accepted by the Board of Trustees. As soon as the necessary funds are secured, of which the prospect is very encouraging, the arrangements for placing the Institution in operation will be carried out at an early day.

WORLD'S AGRICULTURAL FAIR.—A correspondent suggests as a subject for discussion, "a World's Agricultural Fair, to be held in the United States." We shall be glad to hear the views of others upon the subject, though we have doubts as to the feasibility of such a project.

THE NEW-YORK TEACHER.—The N. Y. State Teachers' Association issue a monthly journal, with some numbers of which we have been recently favored. It is published in this city, under the resident Editorship of Alderman VALENTINE, who is aided by 12 other Teachers, residing in different parts of the State. We are glad to see our Teachers thus combining their efforts for the improvement and advancement of their profession. The Teacher should be in the hands of parents as well as instructors. Price $1 a year. Address T. W. VALENTINE, Albany.

HORSES IN ST. LAWRENCE.—A correspondent speaks in the highest terms of the horses in this county, and thinks that no territory of the same size in any part of New-England, can show more first class horses than St. Lawrence. He speaks particularly of "one Black Hawk steed, owned by Messrs. PRESCOT and SHERMAN, of Canton, which might well challenge comparison with anything that ever bore the name of Black Hawk. He is a beautiful bay color, with flowing black mane and tail; stands 16 hands high, and weighs eleven hundred and fifty pounds. His build is faultless—his motion proud and graceful."

COMPARATIVE VALUE OF MANURES.—According to the experiments of H. H. EASTMAN, on potatoes, as reported in the Journal of the N. Y. State Ag. Society, hog-manure gave the best results, the manure of fowls next, compost next, then common unfermented manure. Lime and gypsum, sulphur and saltpetre, did not increase the yield of this crop.

THE CRANBERRY.—Can you inform me, where I can get plants of the true Bell Cranberry? Is it superior to the kind commonly cultivated? Will it flourish on upland? By answering the above, you will confer a favor upon E. BECKWITH. *Norfolk, Ct., June* 30.

Plants of the above Cranberry can be had of F. TROWBRIDGE, New-Haven, Conn. We leave the other questions for correspondents to answer.

EXPORTS OF FLOUR, PROVISIONS, &c.—The following figures show the amount of these articles exported from New-York, from Jan. 1, to June 18, in the years 1852 and 1853.

	1852.	1853.
Wheat flour, bbls.	525,577	605,696
Corn Meal,	23.731	22,268
Wheat, bu.	656.873	1,194,119
Oats,	3,630	23.925
Corn,	521.160	562.790
Pork, bbls.	18.307	36.113
Beef,	24.314	30,365
Cut meats, lbs.	1,056.498	4,632.995
Butter,	295,366	813.256
Cheese,	395.288	1,956.017
Lard,	1,140,154	3,900,663

THE AMERICAN INSTITUTE will hold their cattle-show this year, on the 19th, 20th and 21st days of October, at Hamilton Square, between 3d and 4th Avennes, about four miles from the City Hall, New-York. The show-yard will consist of about ten acres, and the accommodations for the stock superior to those of past years. The Plowing and Spading Matches will be held at Flatbush, on the 11th Oct. The Horticultural exhibition will open at Castle Garden, Oct. 5.

☞ The Hon. CHAS. MASON, Commissioner of Patents, will please accept our thanks for the Patent Office Report for 1851—2 Vols.—Vol. 1, Mechanical—2, Agricultural. These Vols. are issued in a much more creditable style than any of the preceding Reports which have fallen into our hands.

The Farmer's Song.

Composed by J. G. Saxe, Esq., and arranged to music by Prof. T. Wood, and sung by "The Amphions" at the Sheep Shearing Festival of A. L. BINGHAM, Esq. (of West Cornwall, Vt.) at the Hotel of James K. Hyde, in Sudbury, Vt., June 1st and 2d, 1853.

Have you ever heard of the farmers,
Who live among the hills,
Where every man's a sovereign,
And owns the land he tills.
Where all the girls are beautiful!
And all the boys are strong!
Oh! 'tis my delight of a summer night,
To sing the Farmer's song.

'Tis here the tall and manly
"Green mountain boys" are seen,
(So called because the *Mountains*
And not the *Boys* are *green*.)
They'll always fight to win the right,
Or to resist the wrong
Oh! 'tis my delight, &c.

And here the best and fairest
Of Yankee girls are caught,
With every grace of form and face
That ere a lover sought—
And every art to win his heart,
And hold it long and strong.
Oh! 'tis my delight, &c.

'Tis here the "Morgan" horses,
And "Black Hawk" steeds abound;
For grace and beauty, strength and speed,
Their equals can't be found—
They always "go it" fleetly,
They always "come it" strong!
Oh! 'tis my delight, &c.

And here the true Merinos,
Of pure imported stock,
Are often seen to range the green,
In many a noble flock—
Their forms are large and beautiful,
Their wool is fine and long.
Oh! 'tis my delight, &c.

You've often read of the wonders,
Of ancient Rome and Greece,
Of Jason's expedition,
To get the golden fleece—
Alonzo's got the fleece away,
And brought the sheep along!
Oh! 'tis my delight, &c.

Oh! here's success to Bingham!
And all true shepherd men—
May Heaven keep himself and sheep,
Till shearing comes again—
And then may we be there to see,
And help the sport along,
Oh! 'tis my delight, &c.

And now a health to the shearers,
And many joyous years—
Whose hands with will and ready skill,
Propel the busy shears—
With hearts sincere and conscience clear,
Our voices loud and strong.
Oh! we'll take delight from morn to night,
To sing the shearers song.

Information Wanted.

GROUND MICE.—Can any of your correspondents inform the readers of the Country Gentleman, how to destroy ground mice. They are injuring my thorn hedges to such an extent, that I think it useless to plant any more unless these pests can be destroyed. A. W. C. *Coshocton, Ohio.*

STEAMING APPARATUS.—You will confer a favor upon one of your readers, by making known through your papers, the best mode of erecting a steaming apparatus for cooking food for hogs. ORANGE. *Middletown, N. Y., June* 18, 1853.

VINEGAR.—I would like to be informed through your paper, of the best plan of making good Vinegar from cider, in a short space of time. I have seen a recipe for making good Vinegar in a few days, but have forgotten what it was. E. S. S.

SHEPHERD DOGS.—Can you inform me where a pair of Shepherd dogs can be purchased—their price, size, age, &c.? If so, I should feel greatly indebted to you for your kindness. C. L. R. *Fairfield, July* 11, 1853.

CHORLTON'S COLI GRAPERY.—Sir: having seen an advertisement of a book entitled the Cold Grapery, by William Chorlton, if you will be so kind as to inform me where it can be purchased, and the price of the same, you will much oblige URIAH OAKES, Jr. *South Malden, Mass.*

We have been applied to frequently for the above work, but it has not as yet appeared in our bookstores. Mr. CHORLTON, or his publisher should let the public know where it can be procured.

Agricultural Societies.

EXHIBITION OF THE VERMONT STATE AG. SOCIETY.—The Annual Exhibition of the Vermont State Agricultural Society, will be held at Montpelier, on Tuesday, Wednesday, and Thursday, the 13th, 14th, and 15th of September, 1853.

An area of forty acres will be enclosed for the exhibition, and within the enclosure suitable structures will be erected, and arrangements made for the accommodation of all who wish to exhibit either animals or articles. Fresh water forage, consisting of hay, grass, green oats, and corn stalks, for cattle, horses and sheep —straw for littering, and oats for feeding horses, and grain for swine and poultry, will be supplied free of charge, to such exhibitors as choose to keep their animals on the grounds enclosed; and exhibitors of valuable horses, desiring barn accommodations for the same, may procure them in the village at a reasonable expense.

Exhibitors must become members of the Society, and must have whatever they intend to exhibit entered on the Secretary's books on or before Tuesday, the 13th of September. It is quite desirable, however, that the entries should be made at least as early as Monday, the 12th.

Persons residing out of the State, may compete for premiums on foreign stock, plowing, agricultural implements and machines, the various manufactures named in the Premium List of the Society, under the head of Discretionary Premiums; and may make entry of animals or articles of any class, for exhibition merely, which will be admitted within the enclosure for that purpose, if deemed worthy by the Executive Board.

Arrangements have been affected with all the Railroad Companies in Vermont, to carry all animals and articles for exhibition, to and from the Fair free of charge, and without changing cars; and visitors each way at half fare.

Gentlemen from the States, and from the Canadas, are cordially invited to participate in the exhibition.

Communications may be addressed to J. A. Beckwith, Corresponding Secretary of the Vermont State Ag. Society, Middlebury Vt., or to his agent, E. P. Walton, Montpelier, Vt. FREDERICK HOLBROOK, Prest.
J. A. BECKWITH, Secretary.

New-York State Ag. Society.

EXECUTIVE MEETING, Saratoga Springs, July 7, 1853.—Present—LEWIS G. MORRIS, Pres't; J. Beekman Finlay, Vice Pres't; J. A. Sherman, Charles Morrell, J. T. Blanchard, Executive Committee; B. B. Kirtland, Treas.; B. P. Johnson, Sec'y.

Letters were received from Messrs. Vail and Kelly, regretting that they were unable to be present.

Minutes of last meeting read and approved.

The list of Judges was taken up, and vacancies filled, and delegates appointed to corresponding State Societies.

The President presented a letter from the Hon. W. C. RIVES of Virginia, announcing his acceptance of the invitation presented to him to deliver the *annual address* at the Fair.

On motion of Mr. JOHNSON, Resolved, That Prof. JOHN WILSON of London, one of the Commissioners from Great Britain to this country, be requested to deliver, during the Fair, a lecture on the subject of the culture of Flax, and its preparation for manufacture.

The Secretary was directed to present, on behalf of the Society, to the *New-York State Agricultural College*, a set of the Transactions and Journal of the Society.

The following gentlemen were elected corresponding members of the Society:—

Prof. Loon Falkersabouf, Member Agricultural Society of St. Petersburgh, Russia; Prof John Wilson, F. R. S. E.. London; His Ex. Alexander Bodisco, Minister from Russia.

J. Beekman Finlay, of Saratoga, made himself a life member of the Society.

The following Superintendents for the various departments of the Fair, were appointed:—

General superintendent of the grounds,	John A. Corey.
Cattle department,	Thomas Bell.
Horses,	J. T. Blanchard.
Sheep,	Charles Morrell.
Swine,	Joseph Daniels.
Poultry,	O. L. Barber.
Floral Hall,	A. F. Chatfield.
Vegetable Department,	Israel Denio.
Manufacturers' Hall,	Lewis E. Smith.
Mechanic's Hall,	Wm. Platt.
Implement department,	Moses Eames.
Plowing match,	Silas G Smith.
Marshall and Chief of Police,	Henry H. Hathorn, Sheriff, Saratoga.
Committee of Reception of Guests and Strangers,	Hon. R. H. Walworth, " John A. King, Wm. Kelly, Esq. J. Beekman Finlay.
To assign places to visitors,	Gideon Putnam.

Application for places for stock previous to the Fair.—J. A. COREY of Saratoga, will give attention to any requests that may be made. G. W. COLE, Agent of railroads at Saratoga, will attend to all stock and articles consigned to his care, provision being made by the persons sending things for any expense incurred.

COMMITTEE ON THE PART OF CITIZENS OF SARATOGA.—*Of Finance*—Henry H. Hathorn, James M. Marvin, J. T. Blanchard.

Of Correspondence—J. A. Corey, J. Knickerbocker, Jr., G. W. Wilcox.

The specifications for the enclosures, erections and arrangements of the building, tents, and other fixtures, supply of water and fodder for stock, &c., to be provided by citizens of Saratoga, were presented by the Secretary and approved by the board.

B. P. JOHNSON, Sec'y.

Mr. Finlay invited the board, after the session was closed, to examine his premises near the village, and the members of the board and other gentlemen visited Mr. Finlay's place, and were highly gratified with the admirable arrangements of his barns and stables, as well as

his grounds. They are well worthy of a visit from all who may desire to know how these valuable departments of the farm may be both economically and systematically arranged, so as to furnish every desired convenience for stock—"everything in its place, and a place for everything"—is the motto here, and most completely carried out. Mr. Finlay has two very extraordinary heifers, 14 months old, nearly the size of ordinary cows, a cross of the Short Horn and Dutch breeds. One of these heifers has quite a bag, and is giving milk: she has been kept upon the farm since she was dropped, and has had no access to a male. This is a very remarkable case, the like of which has seldom, we believe, been noticed.

The board visited the show grounds, and were highly gratified with the selection. The interest manifested in Saratoga, in relation to the approaching Fair, gives assurance, that the most ample preparation will be made, and the arrangements of the grounds superior to any heretofore prepared for the Society; covering for all the stock will be prepared on the grounds, so that no exhibitor need take his animals from the grounds during the Fair. The intelligence from every part of the State is such as to warrant the expectation, that every department will be fully represented. Northern New-York will make such an exhibition as never has been made from that section of the State—and the assurances from the adjoining States, are such as to leave no doubt that the best of their choice stock and articles will be on hand, and in abundance.

The arrangements for the accommodation of visitors will be most ample, and such as to leave no cause of complaint. The village has largely increased in its hotel and other accommodations, since the Fair in 1847, and the citizens unite with the public establishments in furnishing accommodations to all who may be present.

STEUBEN COUNTY.—At a meeting held at Bath, on the 22d of June, a County Agricultural Society was organized, a constitution adopted, and the following officers elected:—

President—G. DENNISTON, Prattsburgh.

Vice Presidents—1st Assembly District—O. F. Marshall, Wheeler; John B. Mitchell, Wayne. 2d Assembly District—A. B. Dickinson, Hornby; Lyman Balcom, Campbell. 3d Assembly District—Redmon S. Davis, Greenwood; John Van Wie, Howard.

Treasurer—George Edwards, Bath.

Cor. Sec'y—R. B. Van Valkenburgh, Bath.

Rec. Sec'y—George S. Ellas, Bath.

List of States Fairs for 1853.

Vermont,	Montpelier,	Sept'ber,	13, 14, 15.
Kentucky,	Lexington,	"	13, 14, 15, 16, 17
New-York,	Saratoga,	"	20, 21, 22, 23.
Ohio,	Dayton,	"	20, 21, 22, 23.
Pennsylvania,	Pittsburgh,	"	27, 28, 29, 30.
Michigan,	Detroit,	"	28, 29, 30.
Wisconsin,	Watertown,	October,	4, 5, 6, 7.
N. Hampshire,		"	5, 6, 7.
Maryland,		"	25, 26, 27, 28.
Indiana,	Lafayette,	"	11, 12, 13, 14.
American Institute,		"	19, 20, 21.
Virginia,	Richmond,	Nov'ber,	1, 2, 3
Lower Canada Board of Agriculture, Annual Exhibition,		Sept'ber,	27 to 30.
Upper Canada,		October	5 to 7.
Southern Central Ag. Society, Augusta, Georgia,		"	17 to 20.

County Fairs—1853

Herkimer, at Illion,	Sept'ber	27, 28.
Onondaga, at Syracuse,	"	14, 15, 16
Oneida, at Utica,	"	13, 14, 15
Jefferson, at Watertown,	"	13, 14.
Wayne, Newark,	"	7, 8.
Dutchess, at Wash'ton Hollow,	October	4, 5.
Albany at Bethlehem Center,	"	5, 5, 6.

☞ The *Ohio Cultivator* of July 1st, states the culture of the grape is still progressing around Cincinnati, and that the prospects of the present crop are favorable.

NORTH CAROLINA.—At a meeting of the N. C. State Ag. Society, recently held at Raleigh, the preparatory measures for holding a State Fair, were adopted. It was resolved to locate the Fairs permanently at Raleigh, the City Council having resolved to contribute $2,500 toward the purchase of suitable grounds, and the erection of the necessary buildings for the exhibition. The Fair for this year, is to commence on the 18th of Oct.

Horse Powers, &c.

E. W. BADGER & Co., Manufacturers of Badger's Patent Horse Powers, Threshing Machines & Separators, Circular and Cross Cut Saws, &c., Fly Creek, Otsego County, N. Y.

List of Prices, 1853.

Two horse Power, Thresher, Separator, Bands, &c....	$145
One horse do do do do, ..	120
Circular Saw Mill, ...	35
Cross Cut do	25
Thresher, ...	25
Separator, ...	10

All articles warranted. For further particulars address E. W. Badger & Co., Fly Creek, Otsego Co., N. Y.

July 1—w1t—m1t.*

A Partner Wanted.

THE Proprietor of a valuable invention, for which Letters Patent of the United States have already been secured, being unable for want of capital, to bring his invention before the public, desires to form a Partnership with some respectable person who has both time and means to devote to the introduction of the invention which, if properly managed, can scarcely fail of being exceedingly profitable.

Any desired information relative to the invention referred to may be obtained by addressing a line post paid to "Patentee" at this office. July 21—tf.

Gifford Morgan Colts.

I HAVE two Stallion Colts, both by *Old Gifford Morgan*, viz: One a four year old the 18th of July next, a dapple chestnut color—dam by the Genl. Hibard—grand dam by Bullrush. The second three years old 30th of April—color mahogany bay—dam by Green Mountain Morgan, from a Messenger mare. He is a brother to Morgan Chief, owned by Ackley & Gilbert of East Hamilton, N. Y. Both very perfect colts. I will sell either of them. C. BLODGETT.

Waterbury, Vt., May 27.—22—1t—m1t.

Spring Chickens,

HATCHED in March last, of the following breeds:—Bramah Pootras, Buff, Black and Grey Shanghais, Royal Cochin Chinas, Malays, and Great Javas. I have a fine lot of the above for sale, at reasonable prices, which I will warrant pure, and as fine as any in America.

Address J. W. PLATT, box 128, P. O.,

July 7—w2t—m1t* Rhinebeck, N. Y.

Premium Agricultural Works, Albany, N. Y.

THE subscribers, proprietors of the above Agricultural Works, are the sole manufacturers of *Dederick's Patent Parallel Lever and Horizontal Portable Hay Press.* This press was illustrated in the 16th No. of the Country Gent., and the June number of the Cultivator. Since that time, some very essential and valuable improvements have been made. A new and improved capstan has been invented, by which the horse (without being removed from the sweep) operates the press, both in packing the bale, and drawing back the follower, thereby dispensing with the windlass for drawing back the follower by hand. The horizontal press illustrated in the 14th No. of the Country Gent., and the May number of the Cultivator, and *represented* as "H. L. Emery's portable hay press," is the horizontal press as first invented by Mr. Dederick, and exhibited at the New-York State Fair, held at Utica in Sept. last, and was published by said Emery without authority or consent. The Horizontal Press, as since improved, and at present manufactured by us, is universally admired and approved. Its advantages, compared with the upright or vertical portable press, are too numerous to be specified in a limited notice. Descriptive circulars will be promptly sent upon application. We warrant these presses in all cases, to give satisfaction or to be returned. Orders solicited and promptly filled

DEERING & DEDERICK,

Corners of Bleecker and Franklin sts., Albany.

July 21—w29—mtf.

The Cheapest Family Paper in the Union!

THE DOLLAR NEWSPAPER,

PHILADALPHIA.

Price to Single Subscribers, ONE DOLLAR—To Clubs still less.

Thus: for $5. *six copies;* $10, *thirteen copies;* $15, *twenty copies;* $20, *twenty-seven copies;* $25, *thirty-four copies;* $30, *forty-two copies;* $35, *fifty copies.*

It is a Newspaper for the Farmer, the Mechanic, the Merchant and Laborer.

THE publishers spare no efforts to make the "Newspaper" an instructive as well as an entertaining companion for the Farmer and his family. It con ains, weekly, about two columns of original articles on Agricultural subjects, and as they are mostly from practical farmers, are highly appreciated by all classes of readers. Much profit, we learn from all quarters, has been derived from the perusal of this department of the paper. In the course of the year the Agricultural matter of the "Newspaper," if bound up together, would form a good sized book volume, worth more than the cost of a year's subscription.

As a vehicle of the LATEST NEWS, the Newspaper is believed to be without a rival among the weekly Press. It is published on a pair of mammoth machines capable of printing 20,000 impressions each per hour. By the use of these machines the columns of the paper can be kept open to the latest have for news, and until within a few hours of the date of the paper, whereas most other Family papers beingprinted by slow presses go to press several days before the day of their date, thus of course omitting the news. To maintain the excellence of its literary department, the proprietors

OFFER $500 IN PRIZES

For the Four Best American Stories that shall be furnished by the 15th of November, 1853.

For the Story decided to be the best.....	$300
For the Story decided to be the second best,.....	100
For the Story decided to be the next best, ...	60
For the Story decide to be the next best	40

The merits of the several contributions offered will be passed upon by as competent a committee of literary gentlemen as the publisher can command, the names of which committee shall be given to the public at the time of announcing the award. The only restriction imposed on the writers is that the scene of the stories shall be American.

In case sufficient merit is not discovered in any of the productions offered to warrant an award, all the stories may be reclaimed by their authors, but if the award of premiums is made, it is understood that all the contributions received shall belong to the proprietors of the paper.

The stories should be directed under seal "To the Committee of Decision," care of publishers of Dollar Newspaper, with a sealed note containing the name of the story, and the name and address of the writer.

AS AN ADDITIONAL PREMIUM,

The Publishers renew the offer originally made by them to Post-Towns, as follrws:—

"That Post-office of any town in the Union, from which we shall receive the greatest number of subscribers to the Dollar Newspaper, during the year between the first of June, 1853, and the first of June, 1854, (the papers to be mailed to such post-office, or to subscribers through it,) shall be entitled to a continuance of the whole number of the subscriptions, gratu tously, for one year after the expiration of the year for which their subscriptions shall have been paid. The papers will be continued on, either to the subscribers themselves, or to the agents through whom we way receive the orders for quantities, and to whom the package or packages may be directed, or to both, if there should be both in the same town, as the case may be"

THE DOLLAR NEWSPAPER

Is printed on a large imperial sheet of white paper, with entirely new type, of fair, full face, and small body, by which the largest amount of reading may be crowded into the smallest space. It thus presents an appearance as handsome as any other; and while it can be as easily read, contains as much reading matter as any of the largest weekly papers, though costing only half as much.

A. H. SIMMONS & CO. *Publishers*,
S. W. corner of Third and Chestnut sts., Phila.
July 21—w&m1t*

Grey Chittagong Fowls.

PURE blooded Chittagong Fowls and Eggs for sale, by W. BARNES, Bristol, Conn.
April 6—m3t*

Suffolk.

SUFFOLK and Essex Pigs,

Improved Essex.

PURE BRED, for sale by B. F. KEYES,
July 22—m3t Dedham, Mass.

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine—also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette. Superphosphate of Lime, and other fertilisers Jan 1, 1853—m&wtf

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Manures.

PERUVIAN GUANO, 2¼ to 2½ cents per pound.
BONE DUST, when taken in equal quantities, $2.25 per barrel.
BONE SAWINGS, separately, $2.50 per barrel.
PLASTER, $1 to $1 25 per barrel.
POTASH, 3½ to 4 cents per pound.
CHARCOAL, $1 per barrel.
SULPHURIC ACID, 2½ to 2¾ cents per pound.
SUPERPHOSPHATE OF LIME, 2¼ cents per pound.
WOOD'S RENOVATING SALTS, one cent per pound.
For sale at the State Agricultural Warehouse, No 25 Cliff-street, New-York. LONGETT & GRIFFING.
Feb. 1—ctf.

Agricu'tural Implements.

STRAW AND STALK CUTTERS—of all patterns.
CORN MILLS—both of Iron and Burr Stone.
CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.
ROAD SCRAPERS—of several patterns.
FANNING MILLS—of all the best makers.
SAUSAGE STUFFERS AND CUTTERS—of all patterns
VEGETABLE OR ROOT CUTTERS—of approvedkinds.
CORN SHELLERS—for hand and horse power.
VEGETABLE BOILERS—of Mott's and Bent's patterns.
GARDEN AND WHEEL BARROWS—of iron and wood.
HAY AND COTTON PRESSES—Bullock's patent
BRICK MACHINES—of Hall's and other makers.
WAGONS AND CARTS.
PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam PLOWS—Eagle, Massachusetts make, and Minor & Hortons.
For sale at the State Agricultural Warehouse, No. 25 Cliff Street, New-York. Nov. 1—tf.

Devon Bull Red Rover for Sa'e.

RED ROVER is a full blooded North Devon Bull, bred by Geo. Patterson of Maryland; was sired by his superior imported bull Eclipse. His dam was "Venus," an imported cow of Geo Patterson's, sired by Lord Leicester's bull Anchisis. Red Rover was calved June 28th, 1844, and has taken the following premiums:

The 1st premium at Poughkeepsie, as the best bull calf
The 1st " at the American Institute the same year.
The 1st " as the best 1 yr. old, 2 yr. old, 3 yr. old.
The 1st " at the N. Y. State fair in 1847.
The 1st " at the Hartford Co show in 1848.

THOMAS GOULD.
July 1—m3t. Aurora, Cayuga Co., N. Y.

Devon Cows,

HEIFERS, and Bu'l Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y. Braintree, Mass

To Flax Growers.

THE subscriber has invented and builds to order, a FLAX MACHINE, which, attended by two hands, is guaranteed to dress from three hundred to four hundred and fifty pounds of flax per day. The saving in labor and tow, by comparison, is considered equivalent to the cost of dressing flax by the best common machinery, used in this country and Europe. The new machine is made with care, to secure strength and durability, and can be run at a speed which requires more than two hands to attend it. Unrotted flax straw can be dressed by it. It can be driven by horse power or otherwise; and, being portable, can be sent any distance. For the present, the price of the machine complete, is $400. Those who wish to obtain it in season to begin operations next autumn, will do well to apply soon.

S. A. CLEMENS.

Springfield, Mass., March 9, 1853.—mtf.

Albany Tile Works,

Corner Patroon and Knox Streets, Albany, N. Y.

DRAIN TILE of the following descriptions and prices, suitable for land drainage, always on hand, in large or small quantities, of the first quality, delivered at the Docks and Railroad Depots free of cartage.

Horse Shoe Tile.

4½ inch calibre, $18 per 1000 feet.
3½ " " $15 "
2½ " " $12 "

Sole Tile or Pipe.

3 inches calibre, $18 per 1000 feet.
2 " " $12 "

Horse Shoe Hand Tile, 8 inches calibre, for drains around dwellings, at $8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains, at $4 per 100 feet—9 and 6 inch square, polished face Floor Tile, less than one-fourth the cost of marble, for basement floors and cellar pavements—9 and 6 inch square Bakers' Tile, for oven bottoms. Orders from a distance will receive prompt attention. A. S. BABCOCK.

Albany, April 14. 1853—16—13t—c6m.

Atkins' Self-Raking Reaper.

THIS machine is now offered to the public and warranted to be a good self-raking reaper. It is also believed to be a good mower, but not yet having been sufficiently tested in grass (though it soon will be) it is not warranted to be equal to a machine made mainly or wholly to mow.

The raking apparatus is of novel and very simple construction, and not liable to derangement, and every farmer who has seen it in the harvest field, says it performs the raking better than a man can possibly do it.

Price of machines at Chicago, $175, of which $75 must be paid on giving the order, $50 upon successful trial, and $50 in note payable 1st December.

The machines are most thoroughly built and warranted.

☞ Descriptive circulars, with cuts, sent to post-paid applications.

J. S. WRIGHT.

"Prairie Farmer" Warehouse Chicago.

June, 1853.—25—w13.—m3t.

A Virginia Farm For Sale.

PLEASANTLY situated in Fairfax county, 13 miles from Alexandria, 16 miles from Washington, and about 1½ miles from Lee station, on the Alexandria and Orange railroad, a farm of 218 acres, about one-half intervale or bottom land, the residue a gentle swell of upland. It is admirably adapted to grazing, and is well watered with two small streams of never failing water, and is capable of producing excellent crops of corn, wheat, potatoes, grass, &c. The location is healthy, and the markets as good as any in this country. On the premises is a young and thrifty orchard of 125 apple trees, 25 peach trees, pear, cherry trees, &c. Also a timber lot of 20 acres, (hard-wood,) and 50 acres second growth pine, which will yield 40 cords per acre, worth $2 per cord at the railroad, 1½ miles distant. There is a small dwelling house and other buildings on the farm. The fences are tolerable, 2000 new chestnut rails having been added to the fences within two years. Price $10 per acre; one half in hand, the balance in two years. Persons desirous of examining the premises, will call upon ANSEL WHEDON, Agent, near Lee station. For further information, address

A. & O. WHEDON.

March 18—w2—mtf. West Pawlet, Vt.

Fancy Lop-Eared Rabbits.

I HAVE now about ready for delivery, a few pairs of fine English *Fancy Lop-eared Rabbits*, from stock imported by me directly from London and Dublin. Gentlemen, or amateurs, desirous of obtaining fine young stock purely bred, can address GEO. P. BURNHAM,

June, 1853—w3t—m3t. Box 22, P. O., Boston, Mass.

Super-phosphate of Lime.

IN bags and barrels, made by C B. DeBurgh, a warranted pure and genuine article, for sale by

GEO. DAVENPORT,

No. 5 Commercial, corner of Chatham-st., Boston,
Agent for the manufacturer, with directions for use.

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.

April 7—14—1t—mtf.

Valuable Farm for Sale.

THE subscriber offers for sale four hundred and fifty acres of land, being a part of his homestead, and comprising two hundred acres of as desirable land as any in Addison county—lying on the main road four miles north of Vergennes on the border of Lake Champlain, and one mile from the Railroad Station. It is under good cultivation, and furnished with commodious buildings. The remaining 250 acres is wood land; a portion of it covered with a heavy growth of hemlock and other valuable timber, and the remainder with the best quality of wood for fuel. The property will be sold together or in parcels. Postpaid inquiries promptly responded to.

ROW'D T. ROBINSON,

Aug. 1—tf. Ferrisburgh, Addison co., Vt.

Agricultural Imp'ement Manufactory,

Corner of Carolina and Third-streets, Buffalo, N. Y

PITTS' PATENT SEPARATOR—IMPROVED DOUBLE PINION HORSE POWER—PITTS' CORN AND COB MILL &c.

I HEREBY give notice, that since the extension of the Patent right on my machinery for Threshing and cleaning grain, I have removed to Buffalo, N. Y., where I have permanently located, and erected a large establishment for the future manufacture of the above machines.

The Separator has been enlarged, improved, and rendered more permanent and durable in all its parts—while the Horse Power, for strength, ease, durability, and cheapness of repair, is not surpassed by any in the United States. This Power is warranted to stand the full strength of eight horses, also to give as much effective or useful power when driven by one or two horses, as any other Horse Power, whether constructed on the endless chain or lever principle

It was put on trial at the great exhibition of Horse Powers and Threshing Machines, at Geneva, in July last, 1852, where it received the New-York State Agricultural Society's first premium "*for the best Horse Power for general purposes.*"

The Separator, at the same trial, also received the Society's first premium. My machines will thresh and clean from three to five hundred bushels of wheat per day, and other grain in proportion.

Two hundred of the above machines are for sale at the Agricultural Works of the subscriber, in this city, all warranted to be a better article than can be purchased at any other shop, and if they do not prove on trial to be so, I will take them off the hands of the purchasers, at the price they may pay me for them.

I further notify all persons, who are purchasing Horse Powers and Separators to be used in California or Oregon, that I will hold them accountable for any infringement of the rights secured to me by letters patent in the above machines, as I am manufacturing a Horse Power and Separator expressly designed for that section.

All orders for the above machines, hereafter, addressed to the subscriber, will receive prompt attention.

JOHN A. PITTS, Buffalo, N. Y.

April 14—16—1am—c6m

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Hickok's Patent Improved Cider Mill and Press.

WE have been appointed sole agents of this Mill and Press in the city of New-York. This is the most approved mill now in use. Catalogues, with description and drawing, will be forwarded by addressing us, post-paid.—Price $10. LONGETT & GRIFFING,
July 22—30—8t—m2t No. 25 Cliff-street, New-York.

Important to Breeders of Stock.

THE subscriber offers for sale, two thorough bred *Short-Horn* Durham bull-calves—one 20 months old, a beautiful roan color, splendid proportions, a descendant of the much celebrated "*Belted Will*," of England; the other about two months old—white, of unequalled symmetry and beauty, and is also a descendant of "Belted Will"—his dam was got by "Bellville," the champion of England, Scotland and Ireland, and was imported to this province in 1851, and the first of Mr. Hoppers' celebrated herd ever brought into Canada.—Also, two other calves, of the same unequalled breeding, three weeks old. Satisfactory certificates of pedigree will be furnished. For further particulars, application may be made to RALPH WADE, Spring Cottage,
July 7, 1853.—w1t—m2t. near Port Hope, Canada West.

Improved Portable Cider Mill and Press.

HICKOK'S Improved Portable Cider Mill and Press, received following premiums in 1852, viz:—A Silver Medal at the Fair of the American Institute, New-York. Diploma at the Franklin Institute, Philadelphia. First premiums at the State Fair at Utica, and at the Columbia and Rensselaer county Fairs, and a diploma at the Westchester County Fair.

Descriptive circulars sent free to all post-paid applications. See page 23 of this paper, for engraving, &c. Price $10.
Manufactured by W. O. HICKOK,
Harrisburg, Pa.
Sold by LONGETT & GRIFFING, 25 Cliff-st., N. Y.
EMERY & CO., Albany.
DANA BROTHERS, Utica.
PROUTY & CHEW, Geneva.
HIGGINS & CALKINS, Castile, Wyoming County.
C. E. YOUNG, Main-st., Buffalo.
O. GREGORY, Binghamton.
CHARLES ASHLEY, Ogdensburg.
D. LANDRETH, Philadelphia.
July 14—w3m—m3t.

THE COUNTRY GENTLEMAN.

A Journal for the Farm, the Garden, and Fireside.

THE COUNTRY GENTLEMAN has a four-fold purpose—1. To promote the interests of the FARMER, by furnishing him the most approved method of cultivating all his crops and of keeping his farm in a continually improving condition, together with the best mode of breeding and rearing all the Domestic Animals. The Farm Department is intended to be a reliable record of the present state of Agriculture in all parts of the world, and to contain suggestions for Farm management and economy.—2. To be a complete manual for the GARDENER and FRUIT GROWER, and to give safe and specific directions for the culture of GARDEN VEGETABLES, and also information with regard to the FLOWERS, SHRUBS, and ORNAMENTAL PLANTS, suited to the various sections of the country.—3. To supply the FIRESIDE with a variety of instructive and entertaining reading of a high order, and yet suited to the capacity of every reader, to awaken a desire for knowledge and to cultivate a taste for HOME IMPROVEMENT and a love for HOME VIRTUES.—4. To present a careful, concise and impartial RECORD OF THE TIMES, containing all the important events of the day and signs of the times, and thus to lay before country residents a brief and connected history of all the leading movements in the Social, Educational and Political World. In connection with this department, a weekly synopsis of the PRODUCE MARKET, compiled expressly for the paper by a gentleman thoroughly versed in the business, will be given, which will be invaluable to every farmer who has produce to sell.

It will be the aim of the publisher to make the paper attractive and elegant in its typography and illustrations, choice and select in its contents—to make it indispensable to the Farmer, and desirable to every one who has a rod of ground cultivate, or a home to beautify—and by devoting its columns to IMPROVEMENT IN AGRICULTURE, ELEVATION IN CHARACTER, AND REFINEMENT IN TASTE, to render the COUNTRY GENTLEMAN the standard in its sphere.

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Publisher, Albany, N Y.

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